THE ART OF "ORE": CHINESE STRATEGY IN AFRICA

BY

MEL KORSMO

A THESIS PRESENTED TO THE FACULTY OF
THE SCHOOL OF ADVANCED AIR AND SPACE STUDIES
FOR COMPLETION OF GRADUATION REQUIREMENTS

SCHOOL OF ADVANCED AIR AND SPACE STUDIES

AIR UNIVERSITY

MAXWELL AIR FORCE BASE, ALABAMA

JUNE 2010

APPROVAL

The undersigned certify that this thesis meets masters-level standards of research, argumentation, and expression.				
JAMES M. TUCCI (Date)				

DERRICK V. FRAZIER (Date)

DISCLAIMER

The conclusions and opinions expressed in this document are those of the author. They do not reflect the official position of the US Government, Department of Defense, the United States Air Force, or Air University.

ABOUT THE AUTHOR

Major Korsmo was commissioned through the US Air Force Academy, graduating in 1998 with a degree in biology. After graduation, he attended the University of Colorado, Colorado Springs, for post-graduate education in Information Systems. He then attended undergraduate pilot training at Vance AFB, Oklahoma. Upon graduation, he received his assignment to the KC-135 Stratotanker, RAF Mildenhall, United Kingdom. While stationed there, Major Korsmo was selected to attend the Air Force Intern Program at the Pentagon, Washington, DC. During his tour at the Pentagon, he earned his master's degree in organizational management from George Washington University and also completed his master's degree in international relations from the University of Cambridge, United Kingdom. After graduating from the Intern Program, Major Korsmo returned to flying tankers at Kadena Air Base, Okinawa. While stationed at Kadena he served as the 18th Wing Executive Officer.

Major Korsmo is a senior pilot with over 2,000 flying hours and over 400 combat and combat support hours in support of Operation ENDURING FREEDOM and IRAQI FREEDOM. Following completion of his studies at the School of Advanced Air and Space Studies (SAASS), Maxwell AFB, Alabama, Major Korsmo will be attending the University of Denver to complete a PhD in International Studies.

ACKNOWLEDGMENTS

This was an absolutely challenging and rewarding year. I am first deeply indebted to those leaders and mentors at RAF Mildenhall, the Pentagon, and especially Kadena Air Base who guided my development and who recommended this phenomenal program as a future assignment.

I want to particularly thank my School of Advanced Air and Space Studies (SAASS) XIX classmates. I am honored to call them comrades-in-arms and friends. I am also thankful for the SAASS faculty and staff whose dedication, professionalism, and depth of insight are without equal.

I owe many thanks to my adviser, Dr. Jim Tucci, for his efforts in helping me refine this paper throughout its duration. His insights helped frame the initial concept and appropriately bound the subject matter. Dr. Derrick Frazier's also provided essential refinement to the structural and theoretical framework. Though not formally members of my thesis committee, Dr. John Sheldon and Dr. Everett Dolman provided valuable insights on geopolitics, on Africa, and on the notion of continuing advantage.

Most importantly, I want to thank my family. I am especially grateful for my wife's love, patience, and encouragement. Her steadfast role in raising our children is evident in their character, conviction, enthusiasm, and abundant life. Indeed, perhaps the greatest joy I have found as their daddy is arriving home to three excited youngsters bounding out the door to rush joyfully into my arms. I dedicate this paper to them and to my wife.

ABSTRACT

A powerful theme undergirding US national security strategy is guaranteeing assured access to resources. Shortly after 9/11, increasing Chinese acquisition of minerals and mineral fuels in Africa and worldwide highlighted possible future competition over scarce resources. Many analysts decried Chinese actions, for the Chinese offered aid in exchange for resources without any of the West's restrictions that required demonstration of democracy, good governance and increased transparency. Why is China acquiring strategic minerals and mineral fuels from African states? Does China have any objectives beyond resource acquisition? Is Africa a future flashpoint for colliding strategic interests or an opportunity for Sino-American cooperation?

The purpose of this research is to assess China's grand strategy in light of its acquisition of mineral and petroleum resources in Africa. It provides a comprehensive framework for understanding the recent development of strategic competition between the United States and China. It does this in three stages: first, it assesses China's expansion in comprehensive national power using a geopolitical, holistic framework; second, it considers how China's domestic and international environment, national interests, objectives, statecraft, and instruments of power collectively shape development of China's foreign affairs strategy; third, it combines these previous two elements and sets them within the context of China's expanded engagement in Africa. This latter stage demonstrates that China's strategy in Africa is manifold, involving acquisition of mineral and petroleum resources, and just as importantly establishing markets, solidifying relationships, and expanding influence. The conclusion considers the resulting implications for the United States from this Sino-African engagement.

CONTENTS

Chap	oter	Page
	DISCLAIMER	iii
	ABOUT THE AUTHOR	iv
	ACKNOWLEDGMENTS	v
	ABSTRACT	vi
	INTRODUCTION	1
1	THEORY	11
2	CHINA'S COMPREHENSIVE NATIONAL POWER	28
3	CHINA'S FOREIGN AFFAIRS STRATEGY	51
4	CHINA IN AFRICA	70
	CONCLUSION	97
	BIBLIOGRAPHY	112
	ILLUSTRATIONS	
Figur	re	
1	The Role of Non-Fuel Minerals in the US Economy	5
2	2009 US Net Import Reliance for Selected Non-Fuel Mineral Materials	6
3	MacKinder's Heartland	14
4	International Political Change	19
5	Types of International Changes	19
6	Model of Comprehensive National Power	21
7	Foreign Affairs Strategy	23
8	Strategic Environment & Foreign Affairs Strategy	25

9	China's Topography	29
10	China's Share of World Mineral Production in 2005	31
11	UN Population Fund: Age Pyramid of China, 2000 & 2050	33
12	China's Human Development & Inter-Provincial Migration Flow 1995-2000	78, 35
13	US & China GDP Growth Rate, 1978-2008	40
14	2008 and Projections Through 2030 (\$Billions)	42
15	Economic Development Cycle & Commodities Consumption	43
16	R&D Expenditures (\$ billions, PPP)	47
17	Number of Bachelor & Sub-baccalaureate Degrees in Engineer Computer Science, and IT, 2004	ing, 48
18	Number of Engineering Doctoral Degrees	48
19	Strategic Environment & Foreign Affairs Strategy	52
20	China's Critical Sea Lanes	61
21	Critical Minerals for China	63
22	Africa: Areal Extent and Estimated Population in 2007	72
23	World Map indicating Human Development Index	75
24	China's Aid Agreements in Sub-Saharan Africa, 2006-2007	88
25	"Dollar Diplomacy:" Beijing-Taipei Rivalry in Africa, 1989 to 2008	89
26	Senior US & Chinese Visits to Africa, 2005-06	95

Introduction

With the United States primarily focused on the 'Arc of Instability' and the Department of Defense attempting to "balance" its capabilities across the spectrum of warfare, ensuring China's peaceful arrival as a responsible international stakeholder and maintaining military deterrence is more important than ever.

Abraham Denmark

There is little that China can do in Africa to make it stronger or to damage U.S. interests. There are basically three things Americans worry about China doing in Africa: gaining influence from aid and diplomacy that it will use against us, gaining wealth from investments that it will use against us, or somehow screwing up our access to oil...There is nothing sinister or clever about Chinese activity in Africa. Americans shouldn't worry about it.

Benjamin H. Friedman

The subject of China's investments in mineral and mineral fuel resources, particularly on the African continent, received a surge in interest shortly after the turn of the century. While the events of 9/11 caged world-wide interest for several years and catalyzed US engagement in the Global War on Terrorism, China quietly continued in its third-straight decade of solid economic growth, expanding into areas newly opened with its December 2001 induction into the World Trade Organization (WTO). Three years later, China National Petroleum Corporation's announced 40 percent ownership of an international consortium that dominated Sudan's oil fields in partnership with Sudan's national energy company. Then, in mid-2005, China National Offshore Oil Company Limited, a company 70 percent owned by the

1

-

¹ Peter S. Goodman, "China Invests Heavily In Sudan's Oil Industry: Beijing Supplies Arms Used on Villagers," *Washington Post Foreign Service* 23 December 2004.

government, announced a competing and higher bid to Chevron's offer to acquire Unocal.²

Combined with other Chinese infrastructure projects and political maneuvers, these events elevated American public and political concerns regarding China's involvement in various developing regions and its acquisition of strategic resources. Chinese promises and sweeping commitments towards a new "strategic partnership" with Africa—made by President Wen Jaibao at the November 2006 Forum on China-Africa Cooperation (FOCAC) summit in Beijing to 48 attending delegations and 43 African heads of state—appeared to confirm the vast array of technical, economic, and political assistance China now offered African nations.³ By 2007 and 2008, concern reached a crescendo in the United States. Congress held multiple hearings on China, reviewing its increased use of soft power in foreign affairs and its expanded relations in developing nations, especially *vis-à-vis* those with African nations.

Africa—and the developing world in aggregate—represent significant opportunities where China has particularly sought within the last decade to bolster its sphere of influence and to secure resources. African nations find in China a partner who ignores democracy, transparency, and human rights concerns and who, in the main, does not levy political conditions on their economic relations. This contrasts with the Western approach of imposing such conditions in exchange for financial credit.

-

² Jerry Taylor, "CNOOC Bid for UNOCAL No Threat to Energy Security," *Free Trade Bulletin no 19* (19 July 2005). CNOOC withdrew its bid less than seven weeks later, following bitter political backlash and threatened US Congressional intervention. Xinhua News Agency, "CNOOC Withdraws Unocal Bid,"

http://www.china.org.cn/english/2005/Aug/137165.htm (accessed 27 February 2010). For an excellent analysis of the CNOOC case, see Chapter 5 of Gary Clyde Hufbauer, Yee Wong, and Ketki Sheth, *US-China Trade Disputes: Rising Tide, Rising Stakes* (Washington, DC: Institute for International Economics, 2006).

³ Kweku Ampiah and Sanusha Naidu, *Crouching Tiger, Hidden Dragon?: Africa and China* (Scottsville, South Africa: University of KwaZulu-Natal Press, 2008), 27-28.

What frame of reference should the United States use to assess Chinese engagement in Africa? Is Africa a future flashpoint then for colliding strategic interests or an opportunity for Sino-American cooperation? Why is China acquiring strategic minerals and mineral fuels from African states? What objectives are the Chinese pursuing beyond resource acquisition? If the United States does not need these same resources, should its leaders still be concerned about Chinese involvement on the continent? What is really at stake here?

Cautions

This paper, in the main, is an effort to expand US strategists' apertures about China, Africa, and mineral resources. It will accomplish this by intensely surveying those contextual elements affecting Chinese foreign strategy and Sino-African relations. It additionally seeks to reframe US perspective about the significance of strategic mineral resources in upholding the strength of the US industrial base and the technological comparative advantage of its military.

To accomplish this task, I begin with proposing a comprehensive framework for understanding the recent development of strategic competition between the United States and China, particularly focusing on the latter state's rapid expansion in economic and ideational power, and its use of this power within Africa to secure mineral and petroleum resources. I will then conclude the analysis with implications for the United States, demonstrating how China's engagement in Africa has garnered China additional resources, relationships, and influence that hold considerable potential to affect the current international system.

Before detailing further the methodology used in this paper, the reader should understand why non-fuel minerals—such as indium, rare earth minerals, or platinum group metals—are of as much, if not more, strategic interest to the United States as mineral fuel resources like petroleum.

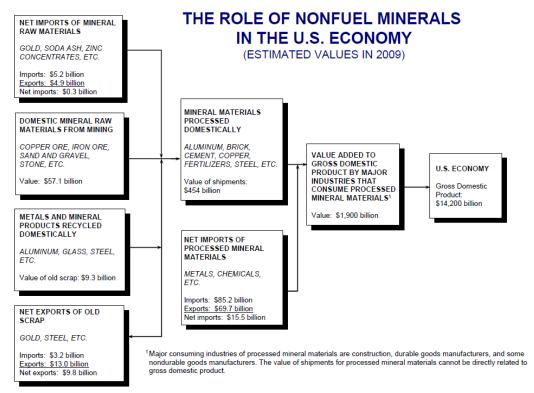
Importance of Non-Fuel Mineral Resources to the United States

Assured access to non-fuel minerals has become a critical and strategic node for the United States. The quality, substitutability, and availability of non-fuel mineral resources are fundamental determinants of US economic activity, the robustness of the defense industrial base, and the maintenance of quality of life standards.⁴ Minerals and mineral material products significantly contribute to every sector of the economy, including defense applications, transportation, communications, infrastructure, health care, and the provision of food and shelter.⁵ Every year more than 25,000 pounds (11.3 metric tons) of new non-fuel minerals must be provided for each person in the United States to make the items that we use every day.⁶ Data from the US Department of Commerce and the US Geological Survey—summarized in the chart below—suggests, in solely economic terms, that major industries using

⁴ The Committee on Critical Mineral Impacts of the U.S. Economy, together with the Committee on Earth Resources, and the National Research Council jointly researched and published a superb study on 11 critical minerals to the US economy. This committee identified five specific dimensions of availability for long-term non-fuel minerals. These include: "geologic (whether the mineral resource exists), technical (whether we extract and process it), environmental and social (whether we can produce it in environmentally and socially accepted ways), political (whether governments influence availability through their policies and actions), and economic (whether we can produce it at a cost that users are willing and able to pay)." In addition to studying supply risk, this committee determined the importance of minerals in use and the degree of mineral substitutability. They then used these three elements—availability, importance, and substitutability—to create a criticality matrix to assess each respective mineral. See Committee on Critical Mineral Impacts of the U.S. Economy, Committee on Earth Resources, and National Research Council, "Executive Summary: Minerals, Critical Minerals, and the U.S. Economy," ed. National Academies Press (Washington, D.C.: 2008), 8, Committee on Critical Mineral Impacts of the U.S. Economy, Committee on Earth Resources, and National Research Council, "Minerals, Critical Minerals, and the U.S. Economy," ed. National Academies Press (Washington, D.C.: 2008), Chapter 1. ⁵ Committee on Critical Mineral Impacts of the U.S. Economy, Resources, and Council, "Executive Summary: Minerals, Critical Minerals, and the U.S. Economy," 1. Committee on Critical Mineral Impacts of the U.S. Economy, Resources, and Council, "Minerals, Critical Minerals, and the U.S. Economy," 63.

⁶ Committee on Critical Mineral Impacts of the U.S. Economy, Resources, and Council, "Executive Summary: Minerals, Critical Minerals, and the U.S. Economy," 1.

processed mineral products in 2009 added \$1.9 trillion to the total US Gross Domestic Product (GDP) of \$14.2 trillion.⁷



Sources: U.S. Geological Survey and U.S. Department of Commerce.

Figure 1: The Role of Non-Fuel Minerals in the US Economy Source: US Department of the Interior and US Geological Survey, "Mineral Commodity Summaries 2010," 5.

The United States is increasingly reliant on foreign imports for raw and processed mineral materials. In 1978, for example, the United States was more than 50 percent import dependent for 25 mineral commodities and completely reliant on imports for seven mineral commodities; in 2009, the United States was more than 50 percent import dependent for 38 mineral commodities and totally import dependent for 19 mineral commodities (depicted in the diagram below).8

⁷ US Department of the Interior and US Geological Survey, "Mineral Commodity Summaries 2010," (Washington, D.C.: 2007), 5, Gordon B. Haxel, James B. Hedrick, and Greta J. Orris, "Rare Earth Elements—Critical Resources for High Technology," in *USGS Fact Sheets*, ed. Peter H. Stauffer and James W. Hendley II (2002).

⁸ US Department of the Interior and Survey, "Mineral Commodity Summaries 2010," 7.

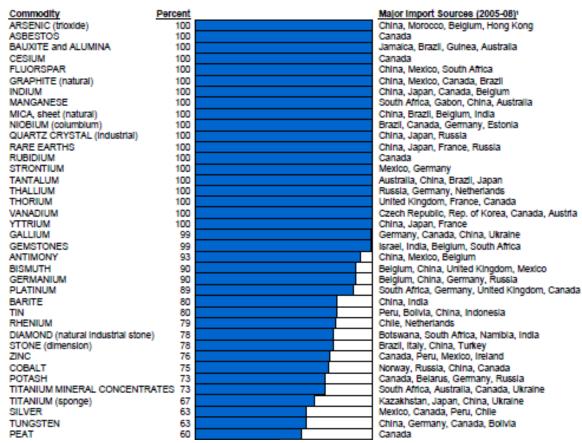


Figure 2: 2009 US Net Import Reliance for Selected Non-Fuel Mineral Materials; Source: US Department of the Interior and US Geological Society, "Mineral Commodity Summaries 2010," 6.

Heavy foreign import dependence on an increasing number of minerals, particularly when these imports come from a limited number of states, magnifies the effects of these other states' trade policies, as well as any context of political instabilities or hostilities. The process required to bring materials from an undeveloped state to the global market as pure mineral products is complex. The required procedures—including exploration, development, extraction, processing, refinement, manufacturing, and marketing—are inherently uncertain, expensive, and

_

⁹ Committee on Assessing the Need for a Defense Stockpile et al., "Managing Materials for a Twenty-first Century Military," ed. National Academies Press (2008), 47.

very risky due to shifting geological, technical, economic, sociological, and political factors. ¹⁰

While the United States is economically and militarily reliant on these minerals, it is ominously unprepared to address this dependence and to evaluate these factors. At the most basic level, the United States lacks appreciation of the situation, for there has been no critical assessment of such aspects as supply chain vulnerability, mineral availability, or substitutability. For example, a Congressionally-tasked committee discovered this critical information void: not one of the 13 principal federally funded statistical agencies is tasked with collecting and publishing annual data on the availability of non-fuel minerals, specifically with respect to domestic and international data on downstream uses of minerals, material flows, in-use stocks, reserves, and recycling generation and inventories.¹¹

Similarly, a 2009 report of the US National Defense Stockpile dramatically emphasized the impact of minerals on weapons systems development and ammunition production. Such impact should not come as a surprise. As the report notes, the "DoD (Department of Defense) has a very significant enduring demand for materials to produce weapon systems and ammunition—with DoD's usage of standard materials being approximately three quarters of a million short tons per annum." The stockpile report evaluated 53 different minerals, identified 13 of these as critical to US defense systems and recommended monitoring, studying,

¹⁰ ———, "Managing Materials for a Twenty-first Century Military," 45.

¹¹ Committee on Critical Mineral Impacts of the U.S. Economy, Resources, and Council, "Executive Summary: Minerals, Critical Minerals, and the U.S. Economy," 11-12. The committee urged the federal government to obtain accurate information on "the geographic locations of secure supplies of critical materials and alternate supplies; the potential for market and geopolitical disruptions as well as logistical and transportation upsets and risks posed by them," and the use of materials in both defense applications and in non-defense sectors in the United States and abroad. Committee on Critical Mineral Impacts of the U.S. Economy, Resources, and Council, "Minerals, Critical Minerals, and the U.S. Economy," 6.

¹² Department of Defense, *Reconfiguration of the National Defense Stockpile Report to Congress* (April 2009), 6.

and considering "future mitigation strategies to ensure availability" of 39 other minerals. 13

Perhaps most alarming in the report is that Defense Department leaders "do not necessarily know exactly which minerals they use in which systems in what amounts, where the minerals come from, the degree of vulnerability of the supply chain, or how to make the supply chain more robust." What Defense Department officials do know is this—these minerals have significantly impacted weapons system development. Twenty of these 53 minerals were identified as "having already caused some kind of significant weapon system production delay for DoD" and 19 other minerals were associated with other types of supply problems. Sharon Burke, an analyst at the Center for a New American Security, is right—minerals "have quietly become a cornerstone of the global economy and the defense industrial base." If assured access to minerals is a direct national security concern as Burke argues, how significant is China's acquisition of strategic minerals and mineral fuels from African states and why is China pursuing this strategy?

Methodology

To understand why China is acquiring these minerals requires insight into China's foreign affairs strategy. Given the closed nature of

^{13 ——,} Reconfiguration of the National Defense Stockpile Report to Congress, 2.
1414 Sharon Burke, "China is Calling for Your Cell Phone," Defense News (12 October 2009). My conversation with the USGS revealed why the Defense Department likely lacks such information. In general, the DoD purchases weapons systems as complete packages from a single defense contractor. This defense contractor is often the final assembler—but not the primary developer—of all the highly sophisticated technological parts. These larger defense contractors, such as General Electric (GE), also lack understanding of what minerals are used in each weapons system. To protect proprietary knowledge and preserve technological advantages, their subcontractors do not reveal what minerals are used in the development of these subcomponents. For this reason, even GE has reportedly conducted its own research on critical minerals, identifying over 10 (unnamed) resources critical to success in its respective industry. Omayra Bermudez et al., Interview with author (US Geological Survey, Reston, VA: 31 March 2010).

¹⁵ Department of Defense, Reconfiguration of the National Defense Stockpile Report to Congress, 11.

¹⁶ Burke, "China is Calling for Your Cell Phone."

^{17 ———, &}quot;China is Calling for Your Cell Phone."

Chinese society, understanding the Chinese perspective involves a certain measure of inductive and deductive reasoning to discern Chinese capabilities and intentions. In building this case, I reviewed relevant primary and secondary literature, including Chinese white papers on national defense and Africa policy as well as action plans and public statements from such venues as the triennial Forum on China-African Cooperation. I then conducted interviews with analysts and decision-makers inside the following institutions: Office of the Secretary of Defense (OSD)/Policy, US Africa Command (AFRICOM), the US Geological Survey (USGS), and various D.C.-based think tanks.

To set the stage for this analysis, I begin with a discussion on international relations theory *vis-à-vis* assessing a state's comprehensive national power base. I assert that a proper assessment of China's comprehensive national power requires breaking outside more limited frameworks in order to draw attention to significant and often overlooked geopolitical aspects of geography, demography, scientific-technical prowess, national ethos, and infrastructure. This broader contextual base provides greater understanding of how China's grand strategy is formed, and then why and how it is using its instruments of national power to pursue certain national interests and objectives. I then provide a structural framework for analyzing development of a state's foreign affairs strategy. The second chapter uses this theoretical framework of comprehensive national power to evaluate China's respective growth over the last three decades and references the United States to establish a comparative scale.

With the theory and groundwork laid, the third chapter launches into a grand strategic appraisal of China using the aforementioned structural framework for understanding how a state arrives at a foreign affairs strategy. In short, it considers China's domestic and international environment to find potential drivers, forces, trends, and conditions, as well as national beliefs and values that possibly influenced decision

makers in selecting their national objectives and in choosing the various instruments of national power to aid in achieving these objectives.

In the words of Colin Gray, Chapter 4 marries "strategic theory with historical evidence." ¹⁸ The chapter begins with a broad-brush overview of the condition of Africa, considering briefly its underappreciated expanse, its heterogeneity, and comparison of African states relative to those in the rest of the world. The chapter continues by establishing a geopolitical understanding of China within the context of its African relationships. In other words, it marshals the theoretical and structural framework about China's comprehensive national power and its foreign affairs strategy covered in the previous three chapters and juxtaposes this understanding with contemporary evidence of China-Africa relations. I posit herein that China has consistently set its African policy based on four strategic objectives: guaranteeing access to natural resources, expanding available markets for domestic exports, solidifying support of Chinese interests in international regimes like the World Trade Organization and the United Nations Security Council, and maintaining or expanding Taiwan's diplomatic isolation.

The analysis will demonstrate that China founded its African engagement on an understanding that Africa is about securing resources, relationships, and influence. The conclusion addresses specific implications of this for the United States and reveals how China's engagement in Africa, coupled with substantial gains in comprehensive national power, positions China to dramatically affect the current international system.

¹⁸ Quoted in David J. Lonsdale, *The Nature of War in the Information Age: Clausewitzian Future*, Cass series--strategy and history (New York: Frank Cass, 2004), iix.

Chapter 1

THEORY

What a cosmic error to judge a nation's strength by its present stock of weapons!

Katherine & A.F.K. Organski

The *DIME* framework, a modern acronym standing for *diplomatic*, *information*, *military*, and *economic*, often dominates the methodology used by Western analysts to assess a nation's power basis. Users of this approach tend to emphasize the military and economic aspects, in part influenced by the fact that these elements more readily lend themselves to quantification through such measures as military budgets and capabilities, and GNP and balance of trade.

In contrast with DIME, George Hall proffers an alternative framework, positing "global conditions have changed to the point where military power has met its match, and that match is national power. Unquestionably, military power remains a major facet of national power, but the study of the latter must go beyond armaments to the national fountainhead that sustains military force. This fountainhead includes the elements of geography and demographics, of economic prowess and technology, of national ethos and infrastructure, and of alliances among nations with common interests." Hall asserts that a strategist must account for non-military elements of national power, for they represent "equal if not greater significance" and are dominant contributors to a nation's effective national defense. Indeed, national power is "an amorphous mixture of many elements" which "combine in different ways to enhance or weaken the pursuit or protection of national interests." In

¹ George M. Hall, *Geopolitics and the Decline of Empire: Implications for United States Defense Policy* (Jefferson, N.C.: McFarland & Co., 1990), 1.

² Robert S. Ross, *Chinese Security Policy: Structure, Power and Politics* (New York: Routledge, 2009), 3.

³ Ross, Chinese Security Policy: Structure, Power and Politics, 4.

sum, although state power is often equated with military and economic might, it is in reality far more complex and far more widely used.⁴ While military power is one element of national power, the emphasis of this work is on the elements more often overlooked.

In this vein, the chapter sets out to provide the theoretical and the structural basis of this work. In short, the theoretical basis used here for understanding, explaining, and predicting international state behavior is founded in an amalgam of classical and contemporary geopolitics tempered by economics. The structural framework in turn provides useful scaffolding by which to analyze systematically how a state arrives at a foreign affairs strategy. Similar to the double helix of DNA, the theoretical and structural framework are best viewed together, forming integral bonds and interwoven strands that necessarily overlap and affect the other in the grand strategy arena.

Geopolitics

Geography is...the mother of strategy.

Colin S. Gray & Geoffrey Sloan

This chapter opened with a discussion of a prevalent method of emphasizing certain elements of national power as vital to a state's strategy and to victory in war. More specifically, the American approach to a strategic problem is often to bring certain military might and technological advantage to bear on the problem; coupled with a perceived just cause, strategic success seems assured.⁵ Colin Gray declared the inherent disadvantage of such popular, prebuilt success formulae in that "their familiarity breeds an unwarranted confidence in interpretation." The purpose of this analysis is to break outside such familiarity to glean new perspectives regarding China's role in Africa and the implications of

12

_

⁴ Katherine Fox Organski and A. F. K. Organski, *Population and World Power*, [1st ed. (New York,: Knopf, 1961), 9.

⁵ Colin S. Gray, *Modern strategy* (New York: Oxford University Press, 1999), 7.

⁶ Gray, Modern strategy, 21.

its actions on American engagement. Geopolitics provides a unique lens by which to break outside these standard methodologies, serving "the valuable function of reminding people about 'the relation of international political power to the geographical setting."⁷

Classical Geopolitics

Classical geopolitics, grounded in the works of Sir Halford Mackinder, primarily addressed the effect of physical geography and technology on determining political outcomes and reshaping the world balance of power. A great example of the latter was Mackinder's oft-quoted dictum that "Who rules East Europe commands the Heartland: Who rules the Heartland commands the World-Island: Who rules the World-Island commands the World's (emphasis in original). Mackinder believed that modern land transport via railways provided key mobility advantages over sea power. If land-based power prevailed, the natural seats of power would be continental. Conflict would naturally gravitate to those areas abounding with arable land or resources—namely in the pivot area, or as he later renamed it, the Heartland (see Figure 3 below). In his view, control of this continental area was key to Europe, Asia, and the world's balance of power, for a state that controlled the Heartland was well-placed for global domination.

⁷ ———, *Modern strategy*, 166.

⁸ Halford John Mackinder, Stephen V. Mladineo, and National Defense University. Institute for National Strategic Studies., *Democratic Ideals and Reality: A Study in the Politics of Reconstruction* (Washington, DC: National Defense University Press, 1996), 106.

⁹ Mackinder, Mladineo, and National Defense University. Institute for National Strategic Studies., *Democratic Ideals and Reality: A Study in the Politics of Reconstruction*, 190.

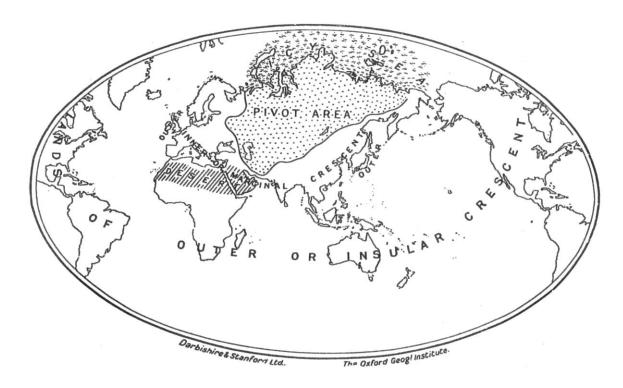


Figure 3: MacKinder's Heartland Source: MacKinder, Mladineo, and National Defense University. Institute for National Strategic Studies., Democratic Ideals and Reality: A Study in the Politics of Reconstruction, 190.

The events of World War II quickly polarized advocates and detractors of Mackinder's theories, with the latter arguing that these had provided an influential foundation for Nazi Germany's expansionist *Lebensraum* philosophy. ¹⁰ Contemporary theorists also quickly discounted geopolitics on the grounds that Mackinder's Heartland theory—while addressing control of the land and sea domains and the

¹⁰ Mackinder's theories were also influential during the Cold War. With the benefit of WWII context, a Dutch-American strategist named Nicholas Spykman reappraised Mackinder's thesis, posturing that unification of the heartland was more difficult than Mackinder believed. Spykman also proposed that the critical area of geostrategic concern—that area with the key populations and resources of concern to the world's balance of power—should be the *Rimland*, a geographic area similar to Mackinder's inner or marginal cresent depicted in Figure 3. George Kennan coined the term "containment", but his arguments that the Eurasian balance of power affected the United States rested on those first presented by Spykman. For this reason, Spykman became known as the "godfather of containment."

role of technology in shaping this control—lost relevancy in the age of air and space power.

Proponents, however, noted that Mackinder's geopolitical ideas were not deterministic in nature. Indeed, Mackinder himself provided the critical caveat that "The actual balance of political power at any given time is, of course, the product, on the one hand, of geographical conditions, both economic and strategic, and on the other hand, of the relative number, virility, equipment, and organization of the competing peoples." Nevertheless, Mackinder did not address in his work how these economic and strategic conditions integrated with socio-cultural or political elements. How might a strategist cull value then from Mackinder's geopolitical theories?

Geopolitics Revised

On the relatively stable foundation of geography, the pyramid of national power rises through different gradations of instability to its peak in the fleeting element of national morale.

Hans Morgenthau¹²

Twenty-first century geopolitics may escape its classical restrictions and accusations of deterministic underpinnings by shifting focus towards uncovering "the connections between geography and the political culture, society, and economic life of polities." ¹³ In other words, geopolitics must continue to assess physical and spatial characteristics, as well as the influence of technology; however, it must additionally consider such factors as the socio-cultural influences of human

¹¹ Mackinder, Mladineo, and National Defense University. Institute for National Strategic Studies., *Democratic Ideals and Reality: A Study in the Politics of Reconstruction*, 192.

¹² Politics among nations, p158

¹³ C. Dale Walton, Geopolitics and the Great Powers in the 21st Century: Multipolarity and the Revolution in Strategic Perspective (New York, NY: Routledge, 2007), 22.

geography.¹⁴ MacKinder provides a good starting point, but as C. Dale Walton clarifies, there is "much more to geopolitics than just physical geography."15 Contemporary geopolitics now also stresses the importance of economics to state power and of geography to economic development. The latter occurs through such factors as agricultural potential, ocean access and ports, possession of natural resources, and position along land trade routes. 16

Human Geography

Amongst the first theorists to begin combining multiple analysis fields and to consider the role of human geography was the duo of Katherine and A.F.K. Organski. The Organskis argued that a state's power is shaped by three major determinants: the government's skill and efficiency, the population size, and the level of economic development.¹⁷ Drawing on their combined professional expertise in demography and international relations, they reviewed primarily the latter two elements, tracing the historical linkage between population factors—including population size, growth rates, and migrations—with the spread of industrialization and capital inputs on affecting that state's economy. 18 From this historical basis, they concluded that "A modern nation's power rests largely upon the size of its population" and cautioned against ignoring the "importance of population in the struggle for power and peace."19

The Organskis further predicted that the sheer population density of India and China, in conjunction with successful industrialization and an influx of capital, virtually guaranteed a shift in world power from the

¹⁴ Walton, Geopolitics and the Great Powers in the 21st Century: Multipolarity and the Revolution in Strategic Perspective, 23.

^{–,} Geopolitics and the Great Powers in the 21st Century: Multipolarity and the Revolution in Strategic Perspective, 23.

^{–,} Geopolitics and the Great Powers in the 21st Century: Multipolarity and the Revolution in Strategic Perspective, 21-22.

¹⁷ Organski and Organski, Population and World Power, 27.

^{18 ———,} Population and World Power.
19 ———, Population and World Power, 246, 52.

East to the West.²⁰ The challenge in these cases where a substantial and growing population begins industrializing is that their respective states initiate "new demands upon the rest of the world—demands which call for changes in existing economic relations."²¹

Power Transition Theory

What happens if a rising challenger exceeds the relative political, economic, and military capabilities of the dominant world power? In contrast to balance of power theory, AFK Organski argues a theory of power transition, asserting that an even distribution of capabilities in this case *increases* rather than decreases the likelihood of war. The dominant or hegemonic power has usually established an existing international order of political and economic structures, regimes, and norms that simultaneously stabilize the system and generally benefit the hegemony's economic position and security. As a result, "Trouble arises when new nations rise to industrial power and seek for themselves the benefits so carefully reserved by those who arrived ahead of them."²²

Robert Gilpin, an international political economist, proffers a similar argumentation for understanding international political change, noting the constant process of disequilibrium and adjustment between states in pursuit of their interests:²³

In every international system there are continual occurrences of political, economic, and technological changes that promise gains or threaten losses for one or another actor ... The relative stability of the system is, in

²⁰——, *Population and World Power*, 247, 50-51. The Organskis did caveat that population size and growth, while providing ready laborers, also compounded certain internal stabilization challenges for such developing nations and increased the possibility of totalitarian solutions to these internal problems.

²¹ ——, Population and World Power, 243.

^{22 ——,} *Population and World Power*, 240. In a later work, A.F.K. Organski notes that the challenging states seek "to establish a new place for themselves in international society, a place to which they feel their increasing power entitles them." A rapid rise in power thus produces certain dissatisfaction with the status quo, particularly regarding their current position in the international system. A. F. K. Organski, *World Politics*, 2d ed. (New York,: Knopf, 1968), 366-67.

²³ Robert Gilpin, *War and Change in World Politics* (Cambridge: Cambridge University Press, 1981).

fact, largely determined by its capacity to adjust to the demands of actors affected by changing political and environmental conditions ... the most destabilizing factor is the tendency in an international system for the powers of member states to change at different rates because of political, economic, and technological developments. In time, the *differential growth* in power of the various states in the system causes a *fundamental redistribution of power* in the system.²⁴

Concurrent with this power shift, "the governance of the system begins to break down as perceptions match up with realities of power" and the "once dominant state is decreasingly able to impose its will on others and/or to protect its interests."²⁵ Other factors that preserve the prestige of a dominant state and the legitimacy of its rule—including respect, common interest, and buy-in to the proposed global system—may also be critically reduced.²⁶

Viewed from the perspective of the rising state or states, differential growth leads to fundamental redistribution of power in the system, which in turn creates *system disequilibrium* as the rising state or states increase demands for change to "reflect their newly gained power and their unmet interests."²⁷ This process is reflected in the diagram below.

²⁴ Gilpin, War and Change in World Politics, 13.

²⁵ ———, War and Change in World Politics, 33.

²⁶ ———, War and Change in World Politics, 30, 34. For example, interest in following a dominant state's lead is in part ensured by that state's ability to supply and guarantee certain public goods, such as international security and beneficial economic order, and by its promotion of a religion or ideology, such as Islam or democratic capitalism. See Gilpin, 30-35.

²⁷ Gilpin, 33

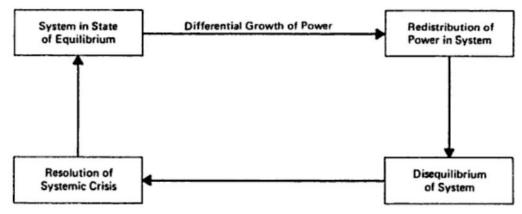


Figure 4: International Political Change Source: Gilpin, War and Change in World Politics, 12.

Gilpin posits that one of three broad types of change in the international system will result during this process: either a *systems change*, meaning a fundamental change in the nature of the actors that constitute the international system; a *systemic change*, meaning a change in the governance or control of the international system; or an *interaction change*, meaning a change in the regular processes and interactions among the main actors in the international system.²⁸ These changes are summarized in Figure 5 below. This analysis assumes a strong level of buy-in to the state system of international politics and therefore focuses on the latter two types of international change.

<u>Type</u>	Factors that change
Systems change	Nature of actors (empires,
	nation-states, etc)
Systemic change	Governance of system
Interaction change	Interstate processes

Figure 5: Types of International Changes Source: Gilpin, War and Change in World Politics, 40.

Summary of Theoretical Framework

The theoretical core for this analysis is founded in contemporary geopolitics, a method useful for assessing comprehensive national power. Geopolitics found its initial explanatory strength in understanding a

19

²⁸ Gilpin, War and Change in World Politics, 39-40.

state's physical and spatial characteristics. Classical geopolitics involves assessing a state's location, size, topography, natural resources, and occasionally its demography. However, as John Burton astutely observes, "No general theory is appropriate which cannot take into consideration the rapidly changing technological, social and political environment in which nations are required to live in peace one with the other."²⁹

Modern geopolitics manifests Burton's observation by placing Mackinder's natural geographic elements within the context of that state's political ideology, national ethos, economic prowess, and technology. Together these elements form the analytic basis for considering the social, political, geographic, and technological environment of states that collectively represent a state's comprehensive national power (CNP).³⁰ Significant differential growth in CNP between a dominant state and a rising state contributes to the power disequilibrium described by Organski and Gilpin. In turn, disequilibrium is often a harbinger of systems change, systemic change, and/or interaction change.

This geopolitical model is summarized in Figure 6 below.³¹ A state's comprehensive national power is composed then of economic and political factors, as well as physical and human geography. Notably absent from the diagram is military power. This is purposeful. As discussed earlier, military power is a major facet of national power. However, the fountainhead that sustains military power is

²⁹ 1965 IR - A General Theory, CUP, 1965, 71-71...as quoted in Gilpin, p6

³⁰ Note that Chinese conceptions of CNP differ slightly from this proposed methodology. Chinese analysts increasingly emphasize the ability to quantify and combine their three categories of power—economic/remunerative, military/coercive, and informational/ideational—into one unified numeric measure useful for shaping their grand strategy by understanding their national circumstances relative to other states. See David M. Lampton, *The Three Faces of Chinese Power: Might, Money, and Minds* (Berkeley: University of California Press, 2008), 20-25.

³¹ While military power is included in this diagram, the emphasis of the analysis is on the other elements of power.

comprehensive national power. CNP might be thought of, in some sense, as latent power. A state must transfer or exchange some amount of this latent power to create a state's actual or mobilized power. In other words, CNP is flexible, fungible power. Creation and maintenance of actualized power requires a state decide how and when to convert this flexible, fungible power into tangible instruments of force or influence. CNP is thus exchanged, transferred, or otherwise converted into select instruments of power.

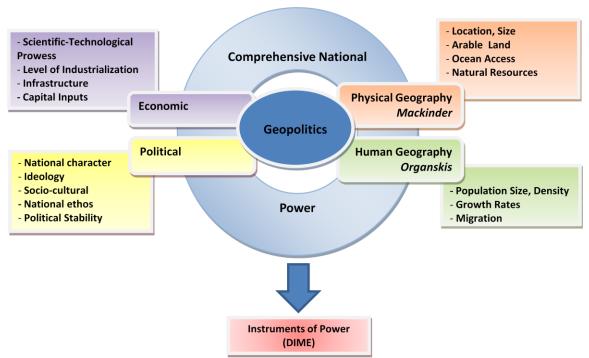


Figure 6: Model of Comprehensive National Power Source: Author's Original Work

As the theoretical foundation of the next chapter, this geopolitical model elucidates the substantial increase in China's CNP, demonstrates China's increase in CNP relative to the United States, and sets both of these elements within the context of relations to African nations.

American reaction to this transition in power is then recognizable as a natural reaction of a dominant state recognizing substantial interaction change in the international system and realizing the fear that this change

might gaining enough momentum to cause eventual systemic change and possible loss of US domination of the international system.

Structural Framework

The structural framework provides useful scaffolding by which to analyze how a state arrives at a foreign affairs strategy in the context of its comprehensive national power. Drawn from the work of National Defense University professor Terry L. Deibel, this framework aids in understanding foreign policy *substance*. A shortfall therefore is that it does not discuss *how* foreign policy was actually formulated or what specific *processes* were used. However, with only very limited visibility into Chinese defense and policy institutions—a complex and non-transparent process likely involving certain elements of coercion and compromise amongst the various stakeholders—this framework is well-suited for substantive analysis of probable inputs and outputs in China's given context.

Deibel's model, shown in Figure 7 below, connects the notion of national interest with the selection of objectives and instruments to take advantage of opportunities that maximize interests while defending them against threats. It begins with a contextual assessment of a state's *international environment*—such as the intents and capabilities of other actors and the nature of the international system—and of its *domestic environment*—including geopolitical realities and social factors similar to those previously discussed. The domestic environment is connected with a state's *power and influence*, indicating that a state's power flows from domestic attributes like territorial location and extent, labor, and capital. The social values of the domestic environment also undergird the national interests, while the international environment is the primary source of challenges threatening national interests.³²

³² Terry L. Deibel, *Foreign Affairs Strategy: Logic for American Statecraft* (New York: Cambridge University Press, 2007), 120.

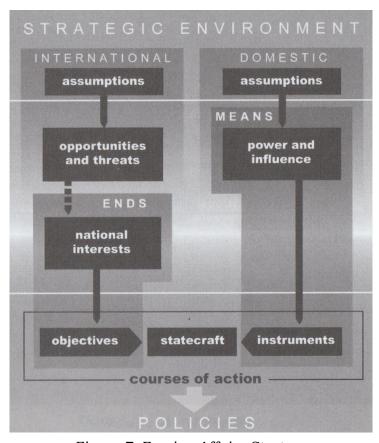


Figure 7: Foreign Affairs Strategy Source: T.L. Deibel, Foreign Affairs Strategy: Logic for American Statecraft, 30

Power and influence in Deibel's model refer to a state's latent, inherent, or potential power. Deibel carefully delineates between this and the *instruments of power*, noting that the latter reflects a transference or exchange to create a state's actual or mobilized power. Deibel asserts that a state converts this power when a subset of national interests, called *objectives*, is achievable at reasonable cost and risk and with a likely chance of success. When these objectives are both desirable and feasible, states select certain instruments of power to apply in various ways to achieve certain objectives. This statecraft process, of connecting objectives with instruments, involves a myriad of techniques: secrecy, breadth, scope, timing, and sequencing of instruments of power are amongst a few of the available tools. A state's foreign affairs *strategy*

is the blending of the objectives, instruments and statecraft in a cohesive plan of action.

Limitations of Deibel's Structural Framework

Deibel's model inappropriately divides the international and domestic environments. This artificial separation ignores the reality that the interaction of these two environments creates opportunities and threats and also substantially impacts that state's power and influence on the international stage.³³ Additionally, Deibel's understanding of power and influence constrains a necessary, holistic assessment of a state's actual power. As discussed earlier, comprehensive national power is a more appropriate tool for considering those elements that affect a state's selection of national interests and how much CNP to convert into various instruments of power. For this reason, I have substituted these changes into a revised model for assessing a state's strategic environment and development of its foreign affairs strategy (see Figure 8 below).

_

³³ An example of this is offered by Kenneth Waltz, who notes how the internal structure of the state may affect its perception of opportunities and threats: "War most often promotes the internal unity of each state involved. The state plagued by internal strife may then, instead of waiting for the accidental attack, seek the war that will bring internal peace." Additionally, Waltz observes that a state may frame and justify its international political behavior "in terms of geographic or economic deprivations." Both examples illustrate the notion that the domestic environment interacts with the international environment more vividly than Deibel's artificial division allows. Kenneth Neal Waltz, *Theory of International Politics*, 1st ed. (Boston, Mass.: McGraw-Hill, 1979), 81-83.



Figure 8: Strategic Environment & Foreign Affairs Strategy Source: Author's Original Work, drawn in part from T.L. Deibel, Foreign Affairs Strategy: Logic for American Statecraft, 30

Limitations of Deibel's Structural Framework

Know the enemy and know yourself, in a hundred battles you will never be in peril.

Sun Tzu

The structural framework used here is a Western model, bringing inherent carryovers and tendencies to mirror image our Western approach with that of the Chinese. David Lai's insightful work, juxtaposing the American and Chinese ways of war, provides relevant insight for understanding the mirror-imaging dangers of natural American analytical proclivities. Francois Jullien, a professor of Chinese studies at the University of Paris, similarly expounds on Western and Chinese strategic thinking.

The Chinese method, referred to in Lai's work as the *shi*, or *potential*, strategic concept, emphasizes a contest of wisdom where the use of force is secondary and where war involves deception, unexpected moves, and relative gains rather than complete annihilation of the

enemy's forces.³⁴ Instead of force-on-force plays, the paradigm of war relies on maneuvers and skills where players constantly and fluidly switch between offense and defense.³⁵ Finally, Lai demonstrates how the Chinese successfully use a three-pronged strategy in creating a favorable environment for a secure "home base": first, they seek constructive relationships with major international players; second, they mend relations with neighboring countries; and third, they aggressively integrate into the global community and environment.³⁶

Strategy from the Chinese perspective is a plan for continuing advantage.³⁷ In comparison to the Western goal-oriented view emphasizing exacting timelines, specific action plans, and success measurements based on anticipated outcomes, the Chinese approach is ambiguous, timeless, and broad. In comparison to a Western endsmeans relational model, the Chinese prefer a conditions-consequences model emphasizing *shi*—that is, they evaluate and determine the circumstances with a view for profiting from them.³⁸ Deibel's model introduces a certain rigidity and finality. In comparison, the Chinese prefer a desire to maintain the strategic variability of water, a fluid and flexible approach constantly remolded and transformed and flowing in

-

³⁴ Dr. David Lai, "Learning from the Stones: A Go Approach to Mastering China's Strategic Concept, Shi," in *Advancing Strategic Thought Series* (Strategic Studies Institute, U.S. Army War College, May 2004), 4-5, 28. The DoD report confirms a resurgence in recent decades for classic Chinese military figures and their writings, "all of which highlight the centrality of deception." Department of Defense, *Annual Report to Congress: Military Power of the People's Republic of China* (2009), 14.

³⁵ Lai, "Learning from the Stones: A Go Approach to Mastering China's Strategic Concept, Shi," 30.

³⁶ ——, "Learning from the Stones: A Go Approach to Mastering China's Strategic Concept, Shi," 31.

³⁷ The term "continuing advantage" is found in Everett C. Dolman, *Pure Strategy: Power and Principle in the Space and Information Age*, Cass Series--Strategy and History (New York: Frank Cass, 2005). Dolman does not associate this term with the Eastern style. ³⁸ François Jullien, *A Treatise on Efficacy: Between Western and Chinese Thinking* (Honolulu: University of Hawai'i Press, 2004), 21.

line with its natural propensity and inclination.³⁹ Use of Deibel's model focuses *on what is*, ignoring the Chinese *shi* approach of *what is* becoming and *what ought to be*.

Deibel's model serves as the structural framework for the third chapter, providing critical linkages for a grand strategic appraisal of China with respect to its foreign affairs strategy for Africa. The appraisal begins with consideration of China's domestic and international context to discover potential drivers, forces, trends, and conditions, as well as national beliefs and values that possibly influenced decision makers in selecting their national objectives and in choosing the various instruments of national power to aid in achieving these objectives. The notions about comparative advantage and the differences in Eastern strategy are woven throughout the analysis.

_

³⁹ Jullien, *A Treatise on Efficacy: Between Western and Chinese Thinking*, 178, 84, Sun Tzu and Samuel B. Griffith, *The Illustrated Art of War* (New York: Oxford University Press, 2005), 152-53.

Chapter 2

China's Comprehensive National Power

The purpose of this chapter is to illuminate the geopolitical terrain across which tread contemporary debates about the engagements of China and the United States on the continent of Africa. The task of the geopolitical framework in this chapter is threefold: first, it is used to assess the increase in China's CNP over the last three decades; second, it demonstrates China's increase in various aspects of CNP relative to the United States and provides avenues for comparative analysis of overlapping economic and resource interests; and third, it sets both of these elements within the context of relations to African nations.

As discussed in the previous chapter, the geopolitical framework includes such elements as relative position to other states, total land mass, topography, demography, and natural resources reviewed within the context of a state's political ideology, national ethos, economic prowess and technological wherewithal to assess that state's comprehensive power base at a given point in time.

Physical Geography

Depending on a geographer's definition of a state's total surface area—that is, whether he accounts for disputed territories, inland water bodies, and coastal waters—China and the United States alternatively vie for the third and fourth largest states in the world. China's land boundaries, however, are nearly double those of the United States. Moreover, these borders are shared—or in several cases, contested—with a multitude of other countries, including Afghanistan, Bhutan, Burma, India, Kazakhstan, North Korea, Kyrgyzstan, Laos, Mongolia, Nepal, Pakistan, Russia, Tajikistan, and Vietnam.² China's coastline is

¹ Paul D. Williams, "Thinking About Security in Africa," *International Affairs* 83, no. 6 (November 2007): 3.

² Department of State, "Background Notes: China," http://www.state.gov/r/pa/ei/bgn/18902.htm. The length of these borders are as

comparatively more limited than the United States, both in total length and in total access. Access to the Pacific Ocean is significantly bounded by the congested South and East China Seas, with Taiwan notably demarcating the confluence of these restrictions; China lacks direct access to the Indian Ocean, the major transportation route of its energy and resource imports.³

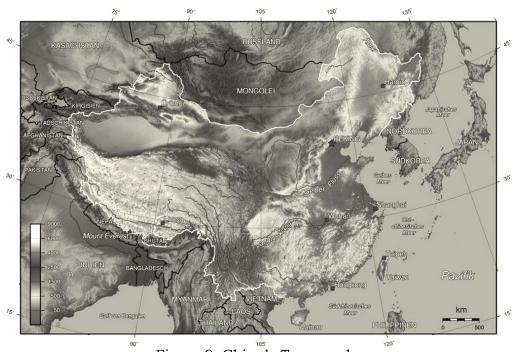


Figure 9: China's Topography Source: http://www.china9.de/landkarten/landkarten-china.php

Chinese topography is dominated by mountainous land and rough, desolate terrain that together constitutes two-thirds of its total territory (see Figure X above).⁴ This topography creates significant internal transportation challenges and reduces China's arable land to only 10 to 15 percent of its total land mass.⁵ This topography also provides China

follows: Afghanistan 76 km, Bhutan 470 km, Burma 2,185 km, India 3,380 km, Kazakhstan 1,533 km, North Korea 1,416 km, Kyrgyzstan 858 km, Laos 423 km, Mongolia 4,677 km, Nepal 1,236 km, Pakistan 523 km, Russia (northeast) 3,605 km, Russia (northwest) 40 km, Tajikistan 414 km, and Vietnam 1,281 km.

⁵ Department of State, "Background Notes: China.", Central Intelligence Agency, "The World Factbook 2009," (Washington, DC: 2009). The State Department assesses that only 10 percent of the land is usable for crops; the CIA claims a much higher 14.86

³ China's reliance on seaborne shipments is discussed further in the next chapter.

⁴ http://english.gov.cn/2005-08/08/content 21134.htm.

with extensive mineral supplies—though not a comprehensive portfolio and not always in quantities that meet China's growing demands. China, for example, is the largest producer of coal in the world, as well as its largest consumer, with this singular energy source accounting for 70 percent of China's current energy consumption.⁶ In 2008, China was the world's leading producer of aluminum, antimony, barite, bismuth, cement, coal, fluorspar, gold, graphite, iron and steel, lead, phosphate rock, rare earths, talc, tin, tungsten, and zinc, as well as the world's leading exporter of antimony, barite, coal, fluorspar, graphite, rare earths, and tungsten.⁷

percent. By comparison, the CIA estimates 18 percent of US land is arable; no State Department data is available. Another argument about China's interest in Africa is that it is acquiring farmland overseas to feed its domestic population. Other states with limited food production capabilities—including the Persian Gulf states, India, Japan, South Korea—have also engaged in similar transactions. For more on China's food role in Africa, see Deborah Brautigam, The Dragon's Gift: The Real Story of China in Africa (Oxford: Oxford University Press, 2009), Ch 9, 10. For a world-wide assessment of agricultural investment, see Carl Atkin et al., "Land Grab? The Race for the World's Farmland," ed. Mchael Kugelman and Susan L. Levenstein (Washington, D.C.: Woodrow Wilson International Center for Scholars, 2009).

⁶ Department of State, "Background Notes: China." China's extensive use of coal, and lack of comprehensive environmental measures, contributes to China's rapid emissions growth of green-house gases, including carbon dioxide, and of acid rain-causing sulfur dioxide.

⁷ US Department of the Interior and Survey, "Mineral Commodity Summaries 2010," 9.1-9.5. China was also among the world's leading producers of copper, lime, magnesium, manganese, molybdenum, salt, and silver.

Commodity	Percentage	Rank
Industrial minerals:		
Cement	45	1
Fluorspar	51	1
Rare earths	96	1
Metals:		
Aluminum	24	1
Antimony	86	1
Copper	16	2
Gold	9	4
Lead	32	1
Magnesium	75	1
Molybdenum	22	3
Silver	12	3
Steel, crude	31	1
Tin	35	1
Tungsten	87	1
Zinc	26	1

Figure 10: China's Share of World Mineral Production in 2005 Source: W. David Menzie and Pui-Kwan Tse, Made in China: China's Growing Appetite for Minerals, US Geological Survey, 2006, 11.

Human Geography

As discussed earlier, human geography, or demography, involves such facets as ethnicity, population size and density, age distribution, urbanization rates and labor force distribution.⁸ China's population as of 2009 is estimated at 1.338 billion people.⁹ Ethnically speaking, the Chinese are nearly homogenous with the Han Chinese representing over 90 percent of the total population.¹⁰ This strong degree of homogeneity may lend itself to stronger degrees of cultural or ideologically affinity that

⁸ Center for Strategic and International Studies and Prudential Foundation, "China's Long March to Retirement Reform: The Graying of the Middle Kingdom Revisited," ed. Richard Jackson, et al. (22 April 2009), 2, 3, 7.

⁹ Central Intelligence Agency, "The World Factbook 2009."

^{10 ——, &}quot;The World Factbook 2009." The Han Chinese are an ethnic group descended from the second Han Dynasty. In the two centuries that the Han Dynasty ruled China, the Han enlarged their territory, initiated trade along the Silk Road, and perpetuated a cultural identity that exists to present day. Eighteen centuries later, one might find considerable linguistic and social diversity within the Han Chinese—though their common history still serves as a central, powerful unifier of national pride. See L. Carrington Goodrich, *A Short History of the Chinese People* (Mineola, N.Y.: Dover Publications, 2002), 43-57, William J. Duiker and Jackson J. Spielvogel, *The Essential World History*, 3rd ed. (Belmont, CA: Thomson Wadsworth, 2008), 114-16.

Hall ascribes as essential for creating a powerful national ethos—itself representing a substantial, though largely immeasurable, element of national power.¹¹

Aging Population

Another element of demography is age distribution. A recent report jointly produced by the Center for Strategic and International Studies (CSIS) and the Prudential Foundation captured the challenging burden China faces of supporting a rapidly aging population while still in the midst of modernization: in 2005, the ratio of elderly Chinese to working-age adults was just 16:100; this aged dependency ratio is projected to double to 32:100 by 2025 and to 61:100 by 2050 (corroborated by UN statistics in Figure X below). 12 The CSIS/Prudential report asserts unveils two related negative trends: first, urbanization and industrialization have unintentionally weakened the traditional means of caring for the elderly through informal family support networks; second, with erosion of traditional support mechanisms, the aging population requires additional government aid, which in turn saps resources needed to buttress "the two principal pillars of the government's political legitimacy—rapidly rising living standards and social stability."13

¹¹ Hall, *Geopolitics and the Decline of Empire: Implications for United States Defense Policy*, 10. For example, Sutter documents how Chinese officials have increasingly used propaganda to capitalize on various nationalistic and patriotic sentiments, thus fostering "a more cohesive and pliant populace" less likely to create social disorder. Robert G. Sutter, *Chinese Policy Priorities and their Implications for the United States* (Lanham, Md.: Rowman & Littlefield Publishers, 2000), 9.

¹² Center for Strategic and International Studies and Foundation, "China's Long March to Retirement Reform: The Graying of the Middle Kingdom Revisited," 2, 3, 7.

¹³ ——, "China's Long March to Retirement Reform: The Graying of the Middle Kingdom Revisited," 10, 13, 42. Additionally see Albert Keidel and Carnegie Endowment for International Peace, "The Economic Basis for Social Unrest in China," in *The Third European-American Dialogue on China* (The George Washington University: 26-27 May 2005).

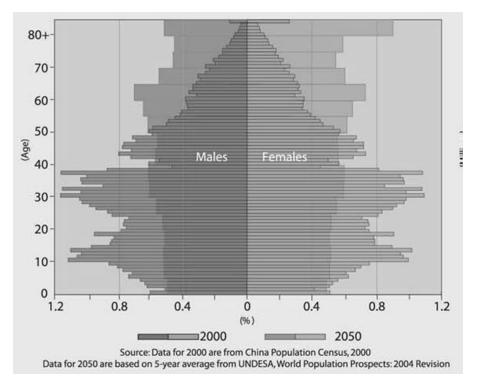


Figure 11: UN Population Fund: Age Pyramid of China, 2000 & 2050 Source: United Nations Population Fund (UNFPA), "Population Aging in China—Facts and Figures," April 2006, 3.

Labor Force & Urbanization

China's labor force is generally organized into three main types of work, with 40 percent engaged in agriculture and the remainder split fairly evenly between industry and services—though these percentages are changing quickly with the massive migration of Chinese to the cities. The abundance and continuous resupply of cheap labor enables China to compete internationally in low-cost, labor intensive manufacturing. The abundance and continuous resupply of cheap labor enables china to compete internationally in low-cost, labor intensive

-

¹⁴ Department of State, "Background Notes: China." Central Intelligence Agency, "The World Factbook 2009." The CIA estimates 27 percent of the labor force works in industry while 33 percent works in services.

From 1978 to 1994, the proportion of the workforce engaged in agricultural production dropped from 71 percent to 54 percent. Craig K. Elwell, Marc Labonte, and Wayne M. Morrison, *Is China a Threat to the U.S. Economy?*, Congressional Research Service (CRS) report for Congress, RL33604 (Washington, DC: CRS, 23 January 2007), 10.

¹⁵ In China's manufacturing sector, the average hourly labor wage was \$1.64 (\$3.19 in purchasing power parity terms), compares to approximately \$18 in the United States. Wayne M. Morrison, *China's Economic Conditions*, Congressional Research Service (CRS) report for Congress, RL33534 (Washington, DC: CRS, 11 December 2009), 14.

China's population in 1983 was approximately 20 percent urban and 80 percent rural; today about 43 percent of the population lives in the cities, with the urbanization rate estimated at a prodigious 2.7 percent annual rate. Consider the societal demands of this rapid urbanization in this regard—the Chinese must literally build the infrastructure equivalent to the creation of a new metropolitan New York City every year in order to house, equip, and provide jobs for an estimated 15-20 million new urbanites.

China's internal migration and urbanization movement is documented in the UN's 2009 Human Development Report. It noted that between 1984 and 1995, the CCP's incrementally relaxed its prohibition against internal population movements. The result was massive intraregional migration towards areas with higher levels of human development (see Figure 12 below).¹⁷ The UN analysis demonstrates that a probable driving factor behind this long established pattern of internal migration is the pursuit by migrants of greater opportunity for improved well-being.¹⁸

_

34

¹⁶ Donald H. Straszheim, "China Rising," *World Policy Journal: MIT Press* (Fall 2008): 160, Central Intelligence Agency, "The World Factbook 2009."

¹⁷ United Nations, "Human Development Report 2009. Overcoming Barriers: Human Mobility and Development," (2009), 9. To access higher levels of human development The UN uses a composite index known as the human development index (HDI). Three basic dimensions are measured, including a long and healthy life, access to knowledge, and a decent standard of living. States with an HDI of .9 or higher are considered developed; states with an HDI of .8 to .899 are considered to have high HDI; .50 to .799 as medium HDI; and 0 to .499 as low HDI. China as a state is considered to have medium HDI. The difference between the coastal regions and inland is significant, as seen in Figure 12. United Nations, "Human Development Report 2009. Overcoming Barriers: Human Mobility and Development," 15.

¹⁸ United Nations, "Human Development Report 2009. Overcoming Barriers: Human Mobility and Development," 9.

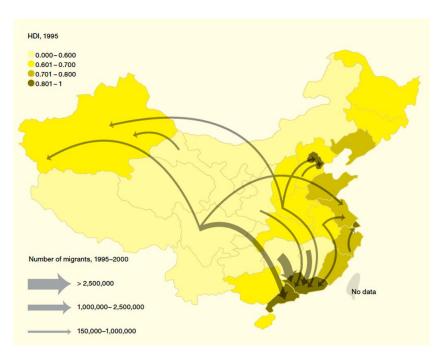


Figure 12: China's Human Development & Inter-Provincial Migration Flows, 1995-2000; Source: United Nations, "Human Development Report 2009. Overcoming Barriers: Human Mobility and Development," 11.

McKinsey Global Institute (MGI) similarly conducted an exhaustive review of this demographic shift, projecting that "the mass-movement of people we are about to see will eclipse even the substantial migration of the past."19 MGI estimated that while approximately 103 million people migrated from rural to urban areas between 1990 and 2005, the following 20 years will witness an additional 350 million people—more than the current population of the United States—being added to China's urban population.²⁰ McKinsey further estimates the growth of six new megacities with over 10 million people and over 221 Chinese cities by then having over one million people living in them.²¹ In comparison, Europe has just 35 such cities today.²²

In sum, the scale of China's present and future urbanization yields substantial potential labor forces as well as increased market

¹⁹ Jonathan Woetzel et al., "Preparing for China's Urban Billion," (McKinsey Global Institute, March 2009), 19.

²⁰ Woetzel et al., "Preparing for China's Urban Billion," 18-19.

²¹ ——, "Preparing for China's Urban Billion," 6, 17. ²² ——, "Preparing for China's Urban Billion," 6.

opportunities, while presenting formidable pressures for local and national leaders in meeting the expectations and basic social services needs of a rapid influx of migrants and the burdens of an ever-aging population. The difference between China's megacities and those of other developing states around the world though is the general absence of a majority population eking out survival on the edge; rather the majority are employed and, in fact, steadily increasing their income.²³

Politics

As one of the oldest continuous civilizations on earth, the role of the government in preserving China's survival and security has been crucial. Moreover, the perception of the government regarding China's regional influence and role in world affairs can be found in the official common name of China— $Zh\bar{o}nggu\acute{o}$ translates traditionally as Middle Kingdom or central nation. The concept of the Middle Kingdom reveals China's historical method of foreign relations. During the Han dynasty the Chinese developed a unique vehicle for relations with foreigners—a tribute and vassal system. This foreign relations strategy started "with the assumption that their civilization was the most advanced in the world," the true center and capital of civilization. The first step of their

²³ Straszheim, "China Rising," 160. Paul Williams documents, for example, that the sprawling slums of Africa represent "the very epitome of urbanized insecurity, with their residents generally lacking law enforcement, regular sources of employment, sanitation, water, electricity and health-care facilities." Williams, "Thinking About Security in Africa," 1026.

²⁴ Marcel Kitissou, *Africa in China's Global Strategy*, 1st ed., African Renaissance Book Series (London: Adonis & Abbey Publishers, 2007), 11.

²⁵ China Representative. OSD Policy, *Interview with author*. (Pentagon, Washington, D.C.: 29 March 2010). As Morris Rossabi notes, during the Han dynasty the Chinese developed a unique vehicle for relations with foreigners—a tribute and vassal system. This foreign relations strategy started "with the assumption that their civilization was the most advanced in the world," the center and capital of civilization. The first step of their scheme "demanded acknowledgment of their superiority." In return for loyalty, the emperor would reward them with trade and tribute, including honors, titles, and generous gifts. See Morris Rossabi, *China among Equals: The Middle Kingdom and Its Neighbors*, 10th-14th Centuries (Berkeley: University of California Press, 1983), 2-3.

system "demanded acknowledgment [by foreigners] of their superiority."²⁶ In return for loyalty, the emperor would then reward them with trade and tribute, including honors, titles, and generous gifts.²⁷

In contemporary context, the conclusion of the Maoist period marked a substantial inflection point in political, economic, and ideological terms. The death of Mao Zedong in 1976 was a harbinger of more pragmatic Chinese leaders—and particularly the visionary Deng Xiaoping—whose greater collective technical competency refocused national debate on the dynamics of nation building, economic modernization, and reform.²⁸ This shift initiated a political trend away from the *ideological* and *coercive* leadership of the Maoist period to political leadership emphasizing *economic* or remunerative power built on a foundation of technical expertise and practical competence.²⁹ While the role of formal Marxist-Lenin ideology in guiding foreign and domestic policy substantially waned from its zenith, Deng Xiaoping and other key leaders still initially leveraged these ideological elements "to *justify* and *legitimate* policy decisions."³⁰

Beyond the government's claim to legitimacy, an assessment of a state's political ideology also involves consideration of the national ethos, cultural bias, and the degree of cultural or ideological affinity.³¹ Edward

-

²⁶ OSD Policy, *Interview with author.* As Morris Rossabi notes, during the Han dynasty the Chinese developed a unique vehicle for relations with foreigners—a tribute and vassal system. This foreign relations strategy started "with the assumption that their civilization was the most advanced in the world," the center and capital of civilization. The first step of their scheme "demanded acknowledgment of their superiority." In return for loyalty, the emperor would reward them with trade and tribute, including honors, titles, and generous gifts. See Rossabi, *China among Equals: The Middle Kingdom and Its Neighbors, 10th-14th Centuries, 2-3.*

²⁷ Rossabi, China among Equals: The Middle Kingdom and Its Neighbors, 10th-14th Centuries, 3.

²⁸ Sutter, Chinese Policy Priorities and their Implications for the United States, 6-7.

^{29 ———,} Chinese Policy Priorities and their Implications for the United States, 1. Lampton, The Three Faces of Chinese Power: Might, Money, and Minds, 253.

³⁰ Emphasis in original. Sutter, *Chinese Policy Priorities and their Implications for the United States*, 183.

³¹ Hall, Geopolitics and the Decline of Empire: Implications for United States Defense Policy, 10.

Chow, a senior fellow at the Center for Strategic and International Studies, noted that the Chinese retain an intensely ethnocentric viewpoint in their relationships with other people, despite diplomatic rhetoric to the contrary.³² In this regard, the Chinese socio-cultural context includes a powerful "sense of Chinese cultural and political superiority" and belief that China has been treated in a historically inferior manner that does not reflect its deserved international position.³³ Contemporary analysis of Chinese culture similarly notes the efforts to educate Chinese schoolchildren regarding their century plus of "national humiliation."34

What the Chinese understand is this: for over 18 centuries—from the first century AD until the early nineteenth century—the Chinese economy represented between 22 and 33 percent of the world's total GDP. 35 When Europe, the United States, and Japan began industrializing, China's share of total GDP plummeted; China's GDP share decreased to just 4.5 percent by 1950 and remained there until Deng succeeded Mao in the late 1970s.³⁶

With millennia-old cultural traditions, "The Chinese people do not see their quest for economic growth as upsetting a global equilibrium; they see it as restoring an equilibrium that persisted throughout much of recorded history."37 Therefore, one should not underestimate the strength of the Chinese national ethos. Informal ideological factors, including cultural values, prejudices, predispositions, and those "unstated but widely shared propositions about reality that condition the

³² Edward Chow, Interview with author (Center for Strategic and International Studies, Washington, D.C.: 1 April 2010).

³³ Sutter, Chinese Policy Priorities and their Implications for the United States, 184.

³⁴ David M. Lampton, "The Faces of Chinese Power," Foreign Affairs (January/February 2007).

³⁵ Angus Maddison, as cited in Lampton, "The Faces of Chinese Power."

^{36——, &}quot;The Faces of Chinese Power."
37——, "The Faces of Chinese Power."

way in which political actors behave," give China salient strength.³⁸ Indeed, as one OSD/Policy analyst stated, the national psyche is carefully and purposefully stoked by governmental advocacy of China's geopolitical centrality as the Middle Kingdom.³⁹

Economics

Economic power is a complex measurement, filling tomes well beyond the scope of this work. This analysis is necessarily a brief review, covering China's GDP, growth rates and trends, scientific-technological prowess, current stage in economic development and level of industrialization, its infrastructure, and its capital inputs.⁴⁰

Gross Domestic Product

By most any measure, the rise of China in the last three decades is amongst the most remarkable economic transformations ever seen. Since 1979 when Deng first launched economic reforms, China's annual GDP has grown by an average of nearly 9.9 percent (see Figure 13 below for comparison to US GDP growth rate).⁴¹ Attributed, in the main, to large-scale capital investment and rapid productivity growth, China's rapid economic growth has produced a 14-fold increase in the economy's size and an 11-fold increase in per capita GDP, resulting in a substantial increase in living standards for much of its population.⁴²

⁴⁰ For more in-depth analysis of China's economy, see....

³⁸ Sutter, Chinese Policy Priorities and their Implications for the United States, 184.

³⁹ OSD Policy, *Interview with author*.

⁴¹ Morrison, *China's Economic Conditions*, 4-5. Morrison's source for this statistic is official Chinese government data and the Economist Intelligence Unit.

^{42 ———,} *China's Economic Conditions*, 4-5. Even during the global economic crisis, China's GDP only slowed to about nine percent in 2008.

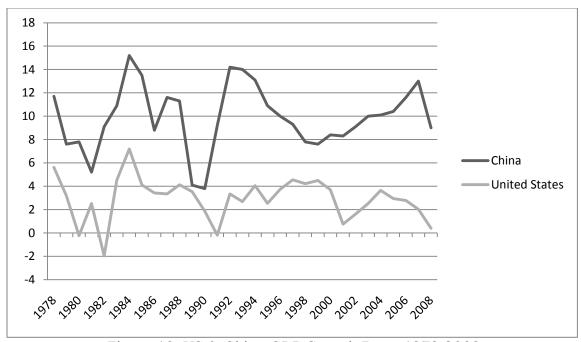


Figure 13: US & China GDP Growth Rate, 1978-2008 Source: Author's Original Work using World Bank Data available at http://data.worldbank.org

A few statistics provide quick context of the magnitude of China's rise and of its potential. To fuel its industrializing economy, China's net oil imports doubled from 2003 to 2008; in 2006, 38 percent of the world's total increase in oil demand was attributable to China.⁴³ In 2003, China became the second-largest consumer of petroleum, surpassing Japan.⁴⁴ In 2007 China exported \$1.218 trillion in merchandise, surpassing U.S. exports valued at \$1.162 trillion and becoming the world's second largest merchandise *exporter* behind Germany.⁴⁵ China is further poised to surpass Germany in the next five years as the world's second largest *importer*.⁴⁶

Economists rarely debate merchandise statistics, but they do contest the actual size of China's economy. At first glance the size of

⁴³ ———, *China's Economic Conditions*, 16, Department of State, "Background Notes: China."

⁴⁴ Department of State, "Background Notes: China."

⁴⁵ Morrison, China's Economic Conditions, 10-11.

^{46 ———,} China's Economic Conditions, 11-13.

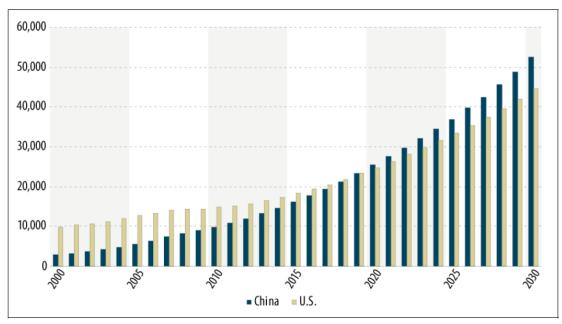
China's economy—measured in U.S. dollars and using nominal exchange rates—appears significantly smaller than the United States; \$4.4 billion vs. \$14.4 billion GDP and \$3,325 per capita versus \$47,496 per capita. However, given that prices in China for most goods and services are significantly lower than those acquired in the United States, these numbers arguably do not reflect the full strength of its economy. To factor in actual purchasing power of currencies and price differentials, economists adjust GDP calculations using purchasing power parity (PPP) measurements. In China's case, the PPP exchange rate nearly doubles the size of China's GDP to \$8.2 trillion and concomitantly the per capita GDP average to \$6,150.49 A number of international economic forecasts project that China's economy will soon surpass the U.S. economy: the Economist Intelligence Unit, for example, forecasts this shift by 2019 (see Figure 14 below), while Goldman Sach's recent work, *BRICs and Beyond*, implies this will occur sometime in the 2020s. 50

⁴⁷ ———, China's Economic Conditions, 7.

^{48 ———,} China's Economic Conditions, 7.

⁴⁹——, *China's Economic Conditions*, 7. Morrison aptly caveats that this is an average for the state as whole; therefore, this does not reflect the aforementioned income disparity between rural areas and cities along the coast.

⁵⁰——, *China's Economic Conditions*, 9. Goldman Sachs, "BRICs and Beyond," http://www2.goldmansachs.com/ideas/brics/BRICs-and-Beyond.html (accessed 26 April 2010).



Source: Economist Intelligence Unit.

Figure 14: GDP on a PPP basis for China and the United States, 2000-2008 and Projections Through 2030 (\$Billions); Source: Economist Intelligence Unit, as depicted in Wayne M. Morrison, China's Economic Conditions, 8

Economic Development & Industrialization

A state's current stage of economic development and level of industrialization may reflect the depth of a state's economic power. Certain levels of economic development and infrastructure are required in order to capitalize on technological know-how. Each stage of economic growth in developing states spurs an increased consumption of mineral commodities required to build the necessary infrastructure, for use in manufacturing facilities, and for conducting technological processes that facilitate production of a given good.⁵¹ Comparatively, the mineral consumption in states with developed economies tends to grow slowly or become relatively static.⁵²

.

⁵¹ W. David Menzie et al., "Overview of Noncoal Mineral Production in the United States in a Global Context—1987 to 2007" (paper presented at the Summit of the States on the Regulation of Noncoal Minerals, Interstate Mining Compact Commission, Denver, CO, November 17, 2009).

⁵² ——, "Overview of Noncoal Mineral Production in the United States in a Global Context—1987 to 2007".

In reviewing this relationship between commodities expenditure and levels of economic development, the US Geological Survey found an increased consumption of certain commodities typically preceded a state's transition towards the next stage of a state's economic development. Specifically they found that consumption of the following commodities increase with each respective economic development stage:

Stage of	Indicated by increased use		
Development	of		
	cement & construction		
Infrastructure	materials		
Light manufacture	copper		
Heavy manufacture	aluminum and steel		
Consumer goods	industrial minerals		
Services	static rates of consumption		

Figure 15: Economic Development Cycle & Commodities Consumption Source: W. David Menzie et al., "China's Growing Appetite for Minerals," in Open-File Report 2004-1374, ed. US Geological Survey (2004)

Using the Republic of Korea as their data set for a successful and contemporary industrializing state, the USGS noted that each respective economic development stage in Korea lasted approximately 20 years, with new stages beginning at five-year intervals and the entire cycle lasting 30 to 40 years. In transferring this model to an analysis of China in 2004, the USGS assessed that based on China's consumption of copper, it was 20 to 30 percent through the light manufacture stage. So Copper is essential to this development stage, with 40 to 50 percent of it used in building construction and the remainder used in key markets of industrial machinery and equipment, electrical and electronic products, and transportation.

USGS analysis conducted five years later showed that Chinese consumption of refined copper increased from half a million metric tons in 1987 (5.1 percent share of world consumption) to over 5.2 million

43

^{53 ——, &}quot;China's Growing Appetite for Minerals," in *Open-File Report 2004-1374*, ed. US Geological Survey (2004).

⁵⁴ ——, "China's Growing Appetite for Minerals."

metric tons just 20 years later (29 percent of world consumption).⁵⁵ Comparatively the United States consumed 2.2 million metric tons (22.2 percent of world consumption) in 1987 and 2.1 million metric tons (12 percent of world consumption) in 2007, although US consumption increased as high as three million metric tons in the 1994-2001 timeframe.⁵⁶

The USGS predicted in 2004 that within a year or two China would be well into the heavy manufacture stage.⁵⁷ Indeed, by 2007 China had become the largest producer and consumer of raw steel in the world, producing 489 million metric tons (37 percent of the world's production) to the United States' 98 million metric tons, and consuming 430 million metric tons—32 percent of the world's consumption and 8 times its consumption in 1987—compared to the United States' 114 million metric tons.⁵⁸

China is also well into the consumer goods stage now. As the USGS notes, one excellent measure of this is increased use of industrial minerals. Industrial minerals include are those naturally occurring, commercially valuable minerals exclusive of mineral fuels and metallic minerals. Generally these minerals are used in their raw or natural state, requiring little in the way of refining or purification processes.

One such industrial mineral is natural sodium carbonate—also known as soda ash—which is used in an array of industrial sectors including production of glass containers, fiberglass, flat glass, soap and detergents, and various chemicals.⁵⁹ In 1987 the United States

⁵⁵ ———, "Overview of Noncoal Mineral Production in the United States in a Global Context—1987 to 2007".

⁵⁶ ——, "Overview of Noncoal Mineral Production in the United States in a Global Context—1987 to 2007".

⁵⁷——, "Overview of Noncoal Mineral Production in the United States in a Global Context—1987 to 2007".

⁵⁸ ——, "Overview of Noncoal Mineral Production in the United States in a Global Context—1987 to 2007".

⁵⁹ ——, "Overview of Noncoal Mineral Production in the United States in a Global Context—1987 to 2007".

produced 8.1 million metric tons of soda ash—87 percent of the world's total; China quickly usurped the United States century-long role as the leading producer, claiming 41 percent of the production market by 2007 with over 18 million metric tons and consuming triple its 1987 volume (36 percent of the world's consumption).⁶⁰

In sum, the scale of China's massive economic development and exponential momentum is evident through its disproportionate impact on major increases in global mineral consumption of mineral commodities such as copper, soda ash, and steel. China's consumption spans an array of minerals well beyond this list and China progressively moves towards more complex and rare minerals as it advances through the economic development stages described above.⁶¹ China's rabid consumption also dramatically impacted the prices of these mineral commodities. Other key determinants of economic growth include investment in science, technology, and infrastructure, manifested in part by the expanse of a state's research and development (R&D) and technology-oriented education. Economic growth and productivity may also be spurred by foreign direct investments. These are reviewed next.

-

^{60 ———, &}quot;Overview of Noncoal Mineral Production in the United States in a Global Context—1987 to 2007".

⁶¹ Consider as well that from 1995 to 2003, China accounted for 68 percent of global demand growth for oil; 73 percent of nickel; 82 percent of steel, 100 percent of aluminum; and 100 percent of copper; and in 2003 China became the world's largest importer of iron ore (a major component of steel). Lampton, *The Three Faces of Chinese Power: Might, Money, and Minds*, 91. Sharon Burke documents the increasing demand of China and India for platinum group metals and rare earth elements. These minerals are used in electronic devices such as cellphones and flat screen TVs, as well as certain US defense systems, though China threatened briefly to cut their exports of rare-earth elements to preserve these for internal requirements. Burke, "China is Calling for Your Cell Phone."

Science, Technology, and Infrastructure

Science and technology are the decisive factors in the competition of comprehensive national strength...independent [Chinese] innovation is the national strategy.

Chinese Premier Wen Jiabao

Chinese infrastructure appears increasingly well-positioned at the center of Asia's economic division of labor, representing the "locomotive of intraregional trade in East Asia" where China creates demand for intermediate goods from its neighbors and then takes these parts and components to assemble into final-demand goods for Western markets. A joint study by CSIS and the Institute for International Economics corroborates China's assembly role, additionally concluding that more than 90 percent of China's high technology trade—such as exports of electronics and information and communications technology—are actually produced by foreign firms in China using the aforementioned imported components. 63

An alternative, more alarmist view was published by Dr. Michael Pillsbury in his report prepared for the US China Economic and Security Review Commission. Pillsbury's report summarized six South Korean assessments of China's dramatic progress in Chinese science & technology and described 16 recent science and technology achievements spread across advanced technology fields, including development and

⁶² David L. Shambaugh, *Power Shift: China and Asia's New Dynamics* (Berkeley: University of California Press, 2005), 3.

⁶³ Assuaging American fears that Chinese high-technology firms were increasingly challenging and competing against US firms, the study also asserted that US data on advanced technology products (ATP) trade with China is hyperbole. Rather than reflecting an alarming deterioration in US competitiveness, the study found that ""China, with its large pool of workers available for unskilled labor-intensive operations, has increasingly become the location of choice for the final assembly of a broad range of goods, especially electronic and information technology products." C. Fred Bergsten et al., "China: The Balance Sheet; What the World Needs to Know Now About the Emerging Superpower," (Center for Strategic and International Studies and the Institute for International Economics, 2006).

employment of supercomputers, a Pentium-equivalent computer chip, cell-cloning technology, and various nanotechnology and space-based ventures.⁶⁴ Such capabilities connote a possible increase in Chinese ability to innovate independently at the levels advocated by Wen.

Dr. Ernest Preeg argued that three principal resource investments lead to independent capabilities in advanced technology development. These include research and development (R&D), technology-oriented education, and foreign direct investment.⁶⁵ Preed's analysis revealed China's growth in R&D, which grew over sevenfold between 1995 and 2006, closing its comparative gap from 10 percent to over 40 percent of the US R&D expenditure (see Figure X below).⁶⁶

	1995	2000	2006	Annual Growth 2000-2006
United States	184.1	264.0	328.9	4%
European Union (15)	130.8	175.7	224.0	4%
China	18.4	48.3	136.3	19%
Japan	78.7	98.6	127.8	4%
India	10.2*	20.7	38.9	11%

^{*1996.}

Sources: OECD Factbook 2006: Economic, Environmental and Social Statistics for 2000 and 2006; and An Emerging Knowledge-Based Economy in China? Indicators from OECD Databases (March 22, 2004), for 1995 data.

Figure 16: R&D Expenditures (\$ billions, PPP)

Source: Ernest H. Preeg, India and China: An Advanced Technology Race and How the United States Should Respond, 36

Meanwhile, the number of graduates from Chinese colleges quadrupled from 1995 to 2005, increasing from 800,000 to over 3 million, surpassing US graduate numbers of 2.4 million.⁶⁷ Qualitatively,

⁶⁴ Michael Pillsbury, "China's Progress in Technological Competitiveness: The Need for a New Assessment," in *A Report Prepared for the US China Economic and Security Review Commission* (21 April 2005).

⁶⁵ Ernest H. Preeg, *India and China: An Advanced Technology Race and How the United States Should Respond* (Arlington, VA: Manufacturers Alliance/MAPI, 2008), 35.

⁶⁶ Preeg, India and China: An Advanced Technology Race and How the United States Should Respond, 36.

^{67 ———,} India and China: An Advanced Technology Race and How the United States Should Respond, 41.

Chinese programs still trail the United States; quantitatively, though, the Chinese by 2004 were graduating nearly three times as many baccalaureate and sub-baccalaureate degrees in engineering, computer science, and information technology (see Figure 17 below).⁶⁸

	United States	China	India
Bachelor Degrees	137,437	351,537	112,000
In Engineering	52,520	NA	17,000
Computer Science, Electrical, and IT	84,917	NA	95,000
Subbaccalaureate Degrees	84,898	292,569	103,000
In Engineering	39,652	NA NA	57,000
Computer Science,	45.040		40.000
Electrical, and IT	45,246	NA	46,000
Total Number of Degrees	222,335	644,106	215,000

Source: Gary Gereffi and Vivek Wadhwa, Framing the Engineering Outsourcing Debate: Placing the United States on a Level Playing Field with China and India, Duke University, December 2005, p. 5.

Figure 17: Number of Bachelor & Sub-baccalaureate Degrees in Engineering, Computer Science, and IT, 2004; Source: Ernest H. Preeg, India and China: An Advanced Technology Race and How the United States Should Respond, 42

The number of Chinese doctoral degrees awarded for engineering also increased nearly fourfold between 1995 and 2003, surpassing US graduate numbers declining in this same measurement (see Figure 18 below).⁶⁹

	1995	2000	2003
European Union (15)	9,501*	8,946	11,263
China	1,659	4,484	6,573
United States	6,008	5,320	5,265
Japan	2,791	3,800	3,921
India	335	723	779

*1996.

Source: NSF Science and Engineering Indicators 2006.

Figure 18: Number of Engineering Doctoral Degrees Source: Ernest H. Preeg, India and China: An Advanced Technology Race and How the United States Should Respond, 43

^{68 ———,} India and China: An Advanced Technology Race and How the United States Should Respond, 42.

⁶⁹ ———, India and China: An Advanced Technology Race and How the United States Should Respond, 35.

Discussion of China's infrastructure must also consider the structure of Chinese polity. Arguably the Chinese Communist Party (CCP), and its accompanying executive machinery, lends itself to greater motility than those of its Western counterparts. While ever-concerned with political survival, the CCP is generally unencumbered by democratic processes, voting constituencies, or concern for human rights or environmental issues. At the same time, China's increased integration in international rule-based regimes is providing new checks and balances against unchecked governmental actions. These aspects are discussed further in the next chapter.

Capital Inputs

China's economic reforms and incentives during the last several decades resulted in a surge in foreign direct investments (FDI), a major source of China's economic growth and productivity. In 1979, FDI in China was just \$109 million, rising to \$2 billion by 1985; in 2008, China was the top destination for foreign direct investment (FDI) amongst developing economies, receiving a total of \$92 billion. This persistently high FDI flow, combined with massive annual trade surpluses, high domestic savings rates, and large foreign currency purchases, surged China's holdings of foreign exchange reserves from \$854 billion in February 2006, to \$1 trillion by the end of 2006, to \$2.4 trillion by January 2010—a currency stockpile over twice the size of Japan's, the second biggest holder of reserves. According to at least one economist,

⁷⁰ Morrison, *China's Economic Conditions*, 9. As a reference point of this investment growth, FDI in China in 1985 was just \$2 billion.

^{71 ———,} *China's Economic Conditions*, 2, 9. Craig K. Elwell, Marc Labonte, and Morrison, *Is China a Threat to the U.S. Economy?*, 6.

⁷² Morrison, *China's Economic Conditions*, 2, 10, Andrew Batson, "China's Reserves Expand " *Wall Street Journal* 18 January 2010, BBC, "China's Foreign Reserves Top \$2tn," http://news.bbc.co.uk/2/hi/business/8151223.stm (accessed 28 March 2010). Craig K. Elwell, Marc Labonte, and Morrison, *Is China a Threat to the U.S. Economy?*, 7.

FDI in China was the decisive catalyst for its export growth and for the development of Chinese advanced technologies.⁷³

Geopolitical Summary of China

Collectively these critical factors of geographic position, demography, natural resource endowment, political ideology and national ethos, and economic size and structure provide context for assessing China's comprehensive national power.

China's physical geography provides a bounty of excellent natural resources while limiting the amount of arable soil. China's extensive land borders introduce a host of neighborly disputes while its limited coastlines prevent assured access to required seaborne supply routes. An expansive, rapidly aging, and urbanizing population simultaneously provides substantial human capital to fuel industrialization efforts and to exacerbate social and regional tensions rising from economic disparities and varied opportunities. Chinese society progressively rallies around informal ideological factors, particularly the socio-cultural context that China is culturally and politically returning to its position as the Middle Kingdom.

For over three decades the Chinese economy has averaged nearly 10 percent growth in GDP, and is now the second-largest economy in the world based on PPP. With a domestic population of over 1.3 billion people, its GDP per capita remains relatively low, while its foreign exchange reserves provide leverage and flexibility in the international economic arena.

50

⁷³ Ernest H. Preeg, *The Emerging Chinese Advanced Technology Superstate* (Washington, DC: Manufacturers Alliance/MAPI; Hudson Institute, 2005), 33-60.

Chapter 3

China's Foreign Affairs Strategy

For the United States, China's engagement in Africa poses a clear challenge to America's stated commitment to promoting good governance in the region and, according to some U.S. businesses, to American competitiveness.

Elizabeth C. Economy, Council on Foreign Relations

Many analysts in the West decry China's actions in Africa as those of an economic competitor driven by a ravenous appetite for resources. China has forged relationships with shunned states such as Sudan and Zimbabwe, thus reportedly undermining Western sanctions and efforts for transparency, good governance, human rights, and the environment. A second and similar interpretation emphasizes that China's new engagement is in fact an effort to colonize and politically control Africa.

In contrast, China's grand strategy is distinctly more manifold and complex than these asserted purposes. Resources are not the only key drivers for China's actions in Africa. China's growing relations are rather part of a long-term strategic plan. China is intensely committed to developing close relationships with the developing world, and especially with African nations, to aid attainment of four interrelated national security objectives. These objectives include: guaranteeing access to natural resources, expanding available markets for domestic exports, solidifying support of Chinese interests in international regimes like the WTO and the UN Security Council, and maintaining or expanding Taiwan's diplomatic isolation.

The structural framework discussed in Chapter 1 and depicted again in Figure 19 below is used here to conduct a comprehensive

¹ See Barry Sautman and Yan Hairong, *East Mountain Tiger, West Mountain Tiger: China, the West, and "Colonialism" in Africa*, vol. 186, Maryland Series in Contemporary Asian Studies (Baltimore, MD: University of Maryland School of Law, Number 3 - 2006), Ch I-III, VI.

appraisal of the potential drivers, forces, trends, conditions, and national values that influenced China's foreign affairs strategy for Africa.

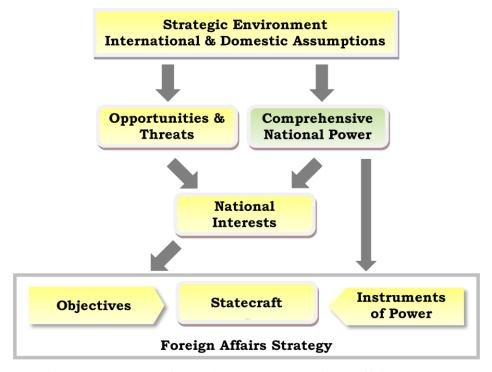


Figure 19: Strategic Environment & Foreign Affairs Strategy Source: Author's Original Work, drawn in part from T.L. Deibel, Foreign Affairs Strategy: Logic for American Statecraft, 30

The chapter begins by considering the *international and domestic* environment of China and then moving then into the opportunities and threats. China's CNP was discussed in detail in the previous chapter. The chapter concludes by reviewing China's national interests. The next chapter will then show how China blended these final three elements—its objectives, instruments, and statecraft—into a foreign affairs strategy for African engagement.

International Environment

China cannot develop in isolation from the rest of the world, nor can the world enjoy prosperity and stability without China.

China's National Defense in 2008, Defense White Paper

Assessment of a state's international environment requires contextual understanding of the intents and capabilities of other states

and of the nature of the international system.² This paper scopes primarily the latter element, as the first task would be a separate thesis by itself.

Beijing's 2008 Defense White Paper partially reveals China's perception of these elements and also its own international aspirations. Perhaps most revealing in this document was China's promotion of "a profound readjustment [that] is brewing in the international system." The Chinese declaration seems initially to contradict an alternative view that China's leaders have assumed a strategic "20-year period of opportunity" wherein regional and international systems will remain sufficiently stable and conducive for China's "rise to regional preeminence and global influence" without worrying intensively about defensive security measures. What caused China then to vocalize its desires for a dramatic readjustment of the international system?

One probable driver is that the Chinese do not trust the current international environment or its main actors to provide guaranteed access to the resources they require in order to sustain their economy and thereby secure the government's legitimacy. Indeed, China began

² Deibel, Foreign Affairs Strategy: Logic for American Statecraft.

³ Beijing Information Office of the State Council of the People's Republic of China, "China's National Defense in 2008," (January 2009). A recent CSIS report documents two of China's more assertive actions towards promoting this multi-polar world. Notably in the same month that this report was released (January 2009), the Chinese Premier Wen Jiabao called US and Western leadership into question at the World Economic Forum, lecturing both about "excessive expansion of financial institutions in blind pursuit of profit...[and an] unsustainable model of development, characterized by prolonged low savings and high consumption." This was followed shortly thereafter by an audacious proposal from China's central bank governor to replace the US dollar as the international reserve currency with a new currency "disconnected from individual nations" and their "credit-based national currencies." See Linton Brooks et al., "China's Arrival: A Strategic Framework for a Global Relationship," ed. Abraham Denmark and Nirav Patel (Center for a New American Security, September 2009), 8.

⁴ Department of Defense, *Annual Report to Congress: Military Power of the People's Republic of China*, 1.

countering this perceived reality several decades ago by creating multiple state-dominated companies to secure such access.⁵

China's leaders also recognize the strategic trade-offs with economic interdependence; China's economic growth in 1978 necessitated access to foreign resources and markets, a measure that simultaneously exposed domestic issues to new global and regional pressures.⁶ In other words, China's economic growth rate—and its domestic stability—are particularly contingent on preserving assured access to commodities and to export markets.

Since free market reforms began under Deng, China's annual GDP growth rate in excess of nine percent has been preserved by an exceptionally high reliance on exports. As evidence of this export-driven market, consider that China's trade-to-GDP ratio in 2008 was 68.5 percent and that its export-to-GDP ratio increased over six-fold in 30 years, from five percent in 1978 to 33 percent in 2008.7 The United States, in comparison, has a trade-to-GDP ratio of 28.7 percent and an

⁵ Chow, *Interview with author*. Chow also noted in this interview that energy analysts too often lump all of China's companies together as having the same exact interests and operating as the long arm of Chinese grand strategy. He notes that the *origins* of each of these companies shaped their respective historic cultures and corporate identities. From this foundation these companies vie for the government's (often indirect) support and funding. As an example of these different origins, he expounded on the histories of the three big Chinese oil companies: Sinopec, for example, was exclusively an oil refiner. Lacking a large number of geologists—necessarily known as risk-takers in the energy-finding business—their culture developed more conservatively and affects efforts to expand its base of operations. China National Petroleum Corporation, also known as CNPC, was a carryover from the ministry days and has carried a legacy of much less transparency while expanding from its previous focus on upstream oil production. On the other hand, China National Offshore Oil Corporation, also known as CNOOC, was originally chartered for offshore oil exploration and for cooperation with Western and foreign oil companies. CNOOC is perhaps of one the best examples of companies created for the purpose of securing access to resources outside of its territory. ⁶ Linton Brooks et al., "China's Arrival: A Strategic Framework for a Global Relationship," 161.

⁷ World Trade Organization, "Trade Profiles: EU, China, and the US," http://stat.wto.org/CountryProfile/WSDBCountryPFView.aspx?Language=E&Country=CN,US,E27 (accessed 2 April 2010). Note that the true contribution of exports to China's GDP is less than 33 percent since exports are measured in gross value versus computing actual value added.

export-to-GDP ratio of nine percent.⁸ China holds a strong export-to-import ratio as well, currently at 1.26 compared to the United States which holds a .59 ratio of exports to imports.⁹

To preserve its high growth rate and export volume, China also consumes an astonishing high volume of commodities. For example, five of the top 10 Chinese imports in 2008—over 39 percent of total imports that year—were mineral-based resources, including: mineral fuel and oil (23.6 percent of total); ores, slag and ash (7.5 percent); organic chemicals (3.5 percent); copper (2.3 percent); iron and steel (2.2 percent). An additional 35 percent of the imports were some form of machinery. China in 2003 consumed over 25 percent of total global aluminum production, 32 percent of iron and coal, and 40 percent of cement.

To sum up, China's export-led strategy requires assured access to external markets and mineral resources. When these requirements are set within the international context, China is "essentially a determined and value-maximising state, operating in an environment perceived as disadvantageous to itself." 12

Domestic Environment

"Black cat, white cat, as long as it catches mice it's a good cat." So declared Deng as he led China out of the Cultural Revolution chaos and set the state on a new trajectory with a "socialist market economy"

⁸ ———, "Trade Profiles: EU, China, and the US." Note that the true contribution of exports to China's GDP is less than 33 percent since exports are measured in gross value versus computing actual value added.

⁹——, "Trade Profiles: EU, China, and the US." China's trade with other states is significantly disproportionate as well. For example, China's predominant trading partners in 2008 were the European Union and the United States, each receiving 20.5 percent and 17.7 percent of China's exports. Their return trade represented only six percent and 5.5 percent of their respective exported goods.

¹⁰ Morrison, China's Economic Conditions, 15.

^{11 ———,} China's Economic Conditions, 15.

¹² Ian Taylor, *China and Africa: Engagement and Compromise*, Routledge Contemporary China Series (Milton Park, Abingdon, Oxon; New York: Routledge, 2006), 3.

¹³ Deng Xiaoping, as quoted in Brautigam, *The Dragon's Gift: The Real Story of China in Africa*, 9.

as its foundation.¹⁴ No longer did the Chinese Communist Party claim legitimacy to govern via its political ideology—economics trumped all. As CSIS's Ed Chow noted, this departure from the use of political ideology as the foundation of the government's legitimacy was irreversibly solidified by the CCP's actions during the Tiananmen Square incident of 1989.¹⁵ All sense of the CCP's ideological supremacy was lost with these events. Thereafter, as China solidified its transition from a centrally planned economy to a socialist market economy, the CCP relied on two sources for legitimacy: individual prosperity and national unity. 16

Prosperity was defined as requiring a minimum eight percent annual growth in GDP; anything less than this amount would likely fail to accommodate the citizen's expectations, leaving some large portions of the population relatively deprived and amenable to social unrest as a probable recourse to protest.¹⁷

This minimum growth rate reflects the massive demographic issues discussed in Chapter 2 that the Chinese government must address. These demographic issues include substantial urbanization and migration of rural Chinese to cities and to coastal regions, coupled with worsening social tensions, an aging population, and enlarged economic disparities between coastal and rural interior populations. The rural population's discontent is captured in part by the increase in recorded public protests, with 8,700 such incidents in 1993 increasing rapidly to 58,000 mass incidents in 2003 and 87,000 in 2005.18

—, The Dragon's Gift: The Real Story of China in Africa, 9.

¹⁵ Chow, *Interview with author*.

^{-,} Interview with author. Busby, in Linton Brooks et al., "China's Arrival: A Strategic Framework for a Global Relationship," 23.

¹⁷ For an excellent study on the theory of expectations and relative deprivation, see Ted Robert Gurr and Woodrow Wilson School of Public and International Affairs., Why Men Rebel (Princeton, N.J.,: Published for the Center of International Studies, Princeton University Press, 1970).

¹⁸ Thomas G. Lum, Social Unrest in China, Congressional Research Service (CRS) report for Congress, RL33416 (Washington, D.C.: CRS, 2006), 1-2.

A study of these large-scale disturbances, conducted by the Carnegie Endowment for International Peace, corroborated the CCP's fears of social unrest caused by underlying economic tensions. ¹⁹ The study found the primary causal factor was "dissatisfaction over the impact of economic reforms and market-based modernization" and that this core dissatisfaction was amplified by "widespread enterprise and government corruption and malfeasance." ²⁰ Given this domestic reality, Chow asserts that the current government's focus is on implementing policies needed to stabilize socio-economic disparities: in essence, the government promises stability and prosperity in exchange for the people's loyalty. ²¹

Abraham Denmark aptly described this new relationship as an "implicit social contract" wherein the CCP "provides China's population with a rising standard of living and promises of a return to China's rightful place as a great power; in return, the people must accept one-party rule and the legitimacy of the CCP."²² While some might discount this as a projection of Western values on the Chinese system, the reality is that this social contract is held as an internal imperative. One Chinese perspective said it this way: "To strengthen comprehensive national strength, it is necessary to hold to our basic national policy centered on economic construction, without wavering in the least. Having economic construction at the core is something that has been determined by the basic national conditions and primary contradictions during the initial stage of socialism"²³ (emphasis mine).

¹⁹ Albert Keidel and Peace, "The Economic Basis for Social Unrest in China."

²⁰ ——, "The Economic Basis for Social Unrest in China," 1.

²¹ Chow, *Interview with author*. Chow also notes that the protests in Tiananmen Square in 1989 and then in Tibet in 2008, sit as prominent reminders to the CCP of what might happen when control of the people is lost.

²² Linton Brooks et al., "China's Arrival: A Strategic Framework for a Global Relationship," 160.

²³ Selected Book Translations XX (On National Security Strategy), ed. Ge Dongsheng and Chen Zhou, trans. Science Applications International Corporation (SAIC). 6 May 2009.

The people's loyalty is also gained by capitalizing on social norms. As Ernest Preeg notes, China's economic strategy embodies a real "sense of national purpose and historic destiny."²⁴ The Chinese expend substantial economic and political capital to establish or leverage existing domestic norms, socializing their populace around broadly shared cultural symbols and visions of a China reclaiming its position on the global stage. These massive efforts often extend into shaping international expectations and norms as well. The Beijing Olympics in 2008 and the 2010 World Expo in Shanghai are two such prominent efforts, each setting new standards as the largest and most expensive venue of its respective type and seen as great sources of Chinese national pride.²⁵

Threats

Economic globalization and world multi-polarization are gaining momentum... The rise and decline of international strategic forces is quickening, major powers are stepping up their efforts to cooperate with each other and draw on each other's strengths. They continue to compete with and hold each other in check, and groups of new emerging developing powers are arising. Therefore, a profound readjustment is brewing in the international system

China's National Defense in 2008

China has released biennial defense white papers for the last 11 years. The 6th edition, *China's National Defense in 2008*, was released in January 2009. Beyond articulating a movement—and a purported desire—towards a multi-polar world, this current edition reveals a newly

UNCLASSIFIED//FOR OFFICIAL USE ONLY. (Beijing: Military Science Publishing House, July 2006).

²⁴ Preeg, India and China: An Advanced Technology Race and How the United States Should Respond, 248.

²⁵ China's mobilization of substantial national resources for these events provided new rallying symbols of national pride and China's reclaimed position. Each rallied around a core them—"One World, One Dream" and "Better City – Better Life" respectively. INSERT SOURCES

assertive and confident China finding itself at what it calls a "new historical turning point" in its role in global economic, political, and military affairs.²⁶

China's self-proclaimed threats and challenges centralize on "issues of existence security and development security" wherein "China is faced with the *superiority* of the developed countries in economy, science and technology, as well as military affairs. It also faces *strategic* maneuvers and containment from the outside while having to face disruption and sabotage by separatist and hostile forces from the inside. Being in a stage of economic and social transition, China is encountering many new circumstances and new issues in *maintaining social stability*"²⁷ (emphasis mine).

The priorities of maintaining social stability and of Chinese efforts to attain scientific, economic, and technological superiority were covered in depth earlier in this chapter and in the previous chapter. The analysis here therefore focuses on China's fears of strategic maneuvers and containment. Perhaps China's greatest fear in this regard is the vulnerability of its maritime shipping of essential oil, natural gas, and mineral imports to disruption by interdiction or blockade.²⁸ China is heavily dependent on certain critical sea lanes, referred to in military parlance as sea lanes of communication or SLOCs, for the transport of energy and mineral imports vital to sustaining its economic growth and

²⁶ Information Office of the State Council of the People's Republic of China, "China's National Defense in 2008." CNA China Studies and Institute for National Strategic Studies. National Defense University, "China's National Defense in 2008: Panel Discussion Report" (6 February 2009), 1, 3, 4. See appendix 1 of this report for a summary of the themes and context of the last six PRC defense white papers. Appendix 2 is also an excellent reference for comparative review of changes in China's transparency over time in these reports and in relation to the transparency of equivalent reports from 13 ASEAN and Asia-Pacific countries.

²⁷ Information Office of the State Council of the People's Republic of China, "China's National Defense in 2008."

²⁸ Abraham M. Denmark et al., "Contested Commons: The Future of American Power in a Multipolar World," ed. Abraham M. Denmark and Dr. James Mulvenon (Center for a New American Security, January 2010), 26.

shoring up the government's legitimacy.²⁹ It is estimated, for example, that between 80 to 85 percent of China's oil and natural gas imports (approximately 40 percent of total needs) currently pass from the Indian Ocean through the Strait of Malacca—a narrow, congested waterway between Indonesia and Malaysia—en route to China's ports (see Figure 20 below).³⁰ Given an insufficient naval presence capable of guaranteeing access to these SLOCs, Chinese leadership refers to this strategic weakness as the Malacca Dilemma.³¹

²⁹ China is not alone in the strategic vulnerability of its SLOCs. The International Maritime Organization, a specialized agency of the United Nations, estimates that over 90 percent of global trade travels by sea on a combined fleet of more than 45,000 merchant ships. CNAS notes that Japan and South Korea, for example, also depend on this strait for access to critical energy sources. Indeed, as CNAS unveils in their report, an estimated 40 percent of the world's traded goods travel through the Strait of Malacca. Moreover, around 75 percent of the world's maritime commerce transits through just a handful of choke points, including international straits and canals. SLOCs thus serve as critical nodes for the preservation of international trade. The collective necessity to defend these areas is demonstrated, in part, by the ability of non-state actors—such as the Somali and Yemen-based pirates—to capture and hold at ransom the crews and cargo of transiting merchant ships. See International Maritime Organization, "International Shipping: Carrier of World Trade," (2005). and especially Abraham M. Denmark et al., "Contested Commons: The Future of American Power in a Multipolar World," Chapters 1, 2, and 6.

³⁰ Department of Defense, *Annual Report to Congress: Military Power of the People's Republic of China*, 4. Robert Kaplan in Abraham M. Denmark et al., "Contested Commons: The Future of American Power in a Multipolar World," 49.

³¹ Department of Defense, *Annual Report to Congress: Military Power of the People's Republic of China*, 4. Robert Kaplan in Abraham M. Denmark et al., "Contested Commons: The Future of American Power in a Multipolar World," 49.

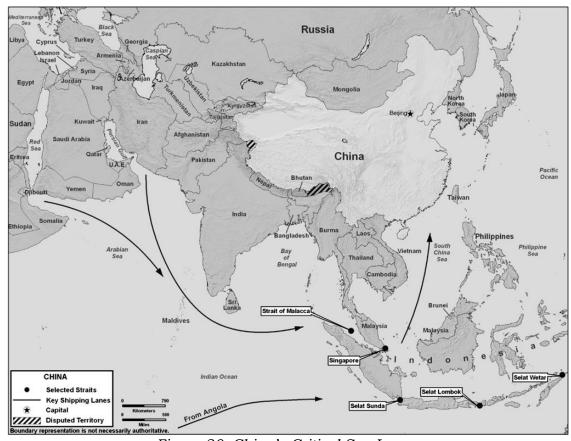


Figure 20: China's Critical Sea Lanes Source: Department of Defense. Annual Report to Congress: Military Power of the People's Republic of China, 2009, 4.

What other threats caused China to articulate fears "strategic maneuvers and containment from the outside" in their 2008 defense white paper?³² China may also feel isolated from access to essential resources given its later arrival to the minerals and mineral fuels market. Despite China's massive mineral reserves and extensive production capabilities discussed in the previous chapter, China still expects to face shortages in 19 of the 45 major mineral commodities it produces.³³ According to the US Geological Society, China's demand exceeds domestic supplies for the following critical minerals (percentages

³² Information Office of the State Council of the People's Republic of China, "China's National Defense in 2008."

³³ US Department of the Interior and Survey, "Mineral Commodity Summaries 2010," 9.2. Pui-Kwan Tse, "The Mineral Industries of China," in *2008 Minerals Yearbook* (US Geological Survey, October 2009).

highlighted where known): bauxite, chromium, cobalt, copper (70 percent shortage), iron ore (40 percent), lead, manganese, nickel, petroleum (60 percent), and potash (70 percent).³⁴

The CCP also monitors production of germanium, indium, niobium, vanadium, and other rare metals and is believed to have established a strategic mineral reserve system for such commodities as chromium, coal, copper, germanium, indium, manganese, oil, rare earths, and tungsten.³⁵ These aforementioned elements are combined for easy cross-reference in Figure 21 below. As will be discussed in the next chapter, a significant proportion of these minerals and mineral fuels are found in Africa.

-

³⁴ US Department of the Interior and Survey, "Mineral Commodity Summaries 2010," 9.2, 9-13. China's Ministry of Land and Resources has issued a government plan to apportion funds for exploration of these very materials found in short supply. See US Department of the Interior and Survey, "Mineral Commodity Summaries 2010," 9.2, 9-13.

US Department of the Interior and Survey, "Mineral Commodity Summaries 2010,"Pui-Kwan Tse, "The Mineral Industries of China."

			Monitored	Monitored	
_	Minerals	Shortages	production	Export	Strategic Reserve
	Bauxite	Х		Х	
	Chromium	X			X
	Cobalt	X		X	
	Copper	X - 70%		X	X
	Germanium		X		Χ
	Indium		X		Χ
	Iron Ore	X - 40%			
	Lead	X			
	Manganese	X			Χ
	Nickel	X		X	
	Niobium		X		
	Petroleum	X - 60%			Χ
	Potash	X - 60%			
	Rare Earths		X	X	Χ
	Tungsten				Χ
	Vanadium		Χ		

Materials Recommended by DoD for US Reserves (see introduction)

Figure 21: Critical Minerals for China

Source: Author's Original Work using data from US Department of the Interior and US Geological Survey, "Mineral Commodity Summaries 2010"

Although coal constitutes the bulk of China's energy consumption (70 percent of total consumption in 2006), oil represents the second-largest source, meeting 20 percent of the state's needs.³⁶ China began importing oil in 1993, surpassing Japan just 10 years later to become the world's second-largest oil consumer.³⁷ China's demand for oil continued near unabated, representing 38 percent of the world's total increase in oil demand in 2006; imports now equal half of China's crude oil needs.³⁸ In 2008, China imported 3.6 million barrels per day (mbd) of crude oil, with approximately 1.8 mbd (50 percent) coming from the

³⁶ Energy Information Administration, "Country Analysis Briefs: China," http://www.eia.doe.gov/cabs/China/Full.html (accessed 2 May 2010).

³⁷ Department of State, "Background Notes: China."

^{38 ——, &}quot;Background Notes: China."

Middle East and 1.1 mbd (30 percent) coming from Africa.³⁹ China's two largest sources—Saudi Arabia and Angola—together accounted for more than one-third of China's oil imports.⁴⁰

With increased negative attention for its activities in Africa, China recently highlighted the fact that while the United States receives nearly 32 percent of Africa's petroleum exports, China only received 12 percent. Left unspoken was the reality of how important African oil now is to the Chinese economy—the 32 percent of exports represents only 10 percent of total US imports, while the 12 percent represents over 30 percent of Chinese imports. A

In sum, China's greatest perceived threats require the need to development scientific and technological superiority, counter efforts at containment, and maintain social stability through sustained economic development. Each of these elements matches the aforementioned analysis of chapter two regarding China's investment in science and technology R&D and education, as well as the challenges of China's physical topography, such as its bounded oceanic coastline and its unique demographic elements of migration, aging population, and economic disparity.

Opportunities

The distracting focus of the United States on counter-terrorism and counter-insurgency operations in Iraq, Afghanistan, the Horn of Africa, and adjoining territories has created opportunities in Southeast Asia, Latin America, and Africa for China, Russia, and other states to

³⁹ Energy Information Administration, "Country Analysis Briefs: China."

⁴⁰——, "Country Analysis Briefs: China." Note that in the first five months of 2009, Iran passed Angola as China's second largest oil supplier. With respect to Africa, Sudan and the Congo both increased their exports to China. See Energy Information Administration, "Country Analysis Briefs: China."

⁴¹ Thomas R. Yager et al., "The Mineral Industries of Africa," in *2007 Minerals Yearbook* (US Geological Survey, 2007), 1.7. Europe also receives almost 32 percent of Africa's petroleum exports as well.

⁴² Energy Information Administration, "Country Analysis Briefs: China." Yager et al., "The Mineral Industries of Africa," 1.7.

increase their diplomatic, economic, and military roles.⁴³ According to Lai and Jullien, China's concept of strategic variability positions China to quickly capitalize on such opportunities, particularly *vis-à-vis* developing strong, constructive relations with selective states.

China's response to a perceived disadvantageous international environment was to exploit this relational opportunity created by America's distraction and neglect. In order to "bolster its own position in the international system," China began constructing linkages with the developing world, especially emphasizing Sino-African relations.⁴⁴ China has capitalized on its image as the leading developing state and its expanded economic power to garner strength and assume expanded roles in bilateral relationships and within various organizations. For example, China has mobilized significant diplomatic support within the G-77, an organization of 77 developing states that leverage their common interests in United Nations deliberations.

With respect to addressing the Malacca Dilemma, China has pursued manifold options to mitigate its supply chain vulnerabilities and address containment fears. Opportunities include: diversification of oil imports, construction of new pipelines to oil-exporting neighbors, and development of a "String of Pearls" strategy that leverages diplomatic relations with states that border the Indian Ocean—such as Pakistan, Bangladesh, and Myanmar—to construct strategically positioned deepwater ports, naval bases, surveillance outposts, and alternative transportation corridors.⁴⁵

⁴³ The US efforts to downgrade terminology from the Global War on Terrorism (GWOT) to Overseas Contingency Operations (OCO) is, in the author's opinion, an effort by the United States to recast the importance of these operations within the geostrategic context.

⁴⁴ Taylor, *China and Africa: Engagement and Compromise*, 3-4. Initially these relations were made by Mao in support of various revolutionary movements. Under Deng, these ⁴⁵ Lawrence Spinetta additionally argues that the "String of Pearls" strategy "allows [China] to challenge US naval hegemony in the South China Sea and the Indian Ocean, to deny the United States access to the region, to negate US influence, and to intimidate neighbors into political accommodation." USAF Major Lawrence Spinetta, "The Malacca

Of these three opportunities, the primary overlap with respect to Africa is China's efforts to diversify and increase its oil import portfolio. During the last decade, China sought greater import portfolio diversification as it pursued long-term contracts with supplier states including Egypt, Chad, Nigeria, Sudan, Indonesia, Kazakhstan, Oman, Russia, Australia, Saudi Arabia, and Venezuela.⁴⁶ As of March 2009, just over half of China's oil is imported from the Middle East while nearly a quarter comes from Africa.⁴⁷ To supplement broader diversification, China has also sought full acquisition of foreign resources. Deologic, a UK-based firm specializing in investment banking and capital markets, assessed that two-thirds of China's \$52 billion in recently announced foreign acquisitions was in natural resources.⁴⁸

National Interests

All interests are expressions of national values.

T.L. Deibel

The domestic environment, discussed in the previous chapter, is the dominant shaping mechanism of national values. These national values take form in national interests. Opportunities and threats arise from the international environment; at the same time, "threats are only threats if they *jeopardize an interest* and opportunities only opportunities

Di

Dilemma: Countering China's "String of Pearls" with Land-Based Airpower" (Air University, June 2006), 6. For more on import portfolio diversification, see Energy Information Administration, "Country Analysis Briefs: China." Regarding deep-water ports, China has developed at Peshawar, Pakistan, see "Pakistan launches strategic port " *BBC News* 20 March 2007. Finally, for a perspective on China's daunting task of achieving oil security, see Andrew S. Erickson and Gabriel B. Collins, "China's Oil Security Pipe Dream: The Reality, and Strategic Consequences, of Seaborne Imports," *Naval War College Review* 63, no. 2 (Spring 2010).

⁴⁶ Department of Defense, *Annual Report to Congress: Military Power of the People's Republic of China*, 4.

⁴⁷——, Annual Report to Congress: Military Power of the People's Republic of China, 4, 6. China's top suppliers in 2006 were Angola (16 percent), Saudia Arabia (16 percent), and Iran (12 percent); in 2007, Sudan supplied six percent of China's oil imports. The primary African suppliers to China then are Angola, the Sudan, and the Congo. ⁴⁸ Shai Oster and Rick Carew, "China Inc.'s Top Deal Maker Provokes a Backlash Abroad " Wall Street Journal 16 April 2009.

if they can help a state *advance an interest*"⁴⁹ (emphasis mine). This section will discuss Chinese national interests and link these interests with the previously discussed threats and opportunities to show how they are jeopardized or advanced.

The Department of Defense identified in its annual report to Congress on the Military Power of the People's Republic of China "a set of enduring strategic priorities" that China's leaders have reportedly adopted, including "perpetuating Chinese Communist Party (CCP) rule, sustaining economic growth and development, maintaining domestic political stability, defending China's national sovereignty and territorial integrity, and securing China's status as a great power." Analysts at RAND similarly identified three interrelated interests that China is pursuing, which include "first and foremost, the preservation of domestic order and well-being in the face of different forms of social strife; second, the defense against persistent external threats to national sovereignty and territory; and third, the attainment and maintenance of geopolitical influence as a major, and perhaps primary, state." 51

Both the RAND and DoD reports hold in common the importance of domestic stability, defense of territorial integrity and sovereignty, and China's role as a great power. While the RAND report does not specifically discuss CCP rule or sustained economic growth, these elements are, in the main, implied under "preservation of domestic order" and necessary to attain geopolitical influence. Each of China's greatest perceived threats—including social instability, containment, a disadvantageous international system, and superiority of developed

⁴⁹ Deibel, Foreign Affairs Strategy: Logic for American Statecraft, 143.

⁵⁰ Department of Defense, *Annual Report to Congress: Military Power of the People's Republic of China*, 2. The DoD report corroborates previous discussion that regime survival and CCP perpetuation serve as primary determinants of China's strategic choices. Moreover, the report agrees that given the inability of communist ideology to sufficiently unify the population, the CCP based its regime legitimacy on economic performance and nationalism.

⁵¹ Michael D. Swaine, Ashley J. Tellis, and Project Air Force (U.S.), *Interpreting China's Grand Strategy: Past, Present, and Future* (Santa Monica, CA: Rand, 2000), x.

countries—would jeopardize its respective interests as assessed by DoD and RAND. Opportunities previously focused on Chinese options to mitigate the Malacca Dilemma, to improve relational linkages with other states, and to diversify oil imports—all significant elements for advancing these same interests.

Conclusion

This chapter used a model of foreign affairs strategy development to evaluate the international and domestic environment of China and unveil probable opportunities and threats arising from this framework. These elements, along with national values, collectively shape China's national interests.

Robert Kaplan observes that "Empires are often not sought consciously. Rather, as states become stronger, they develop needs and—counter-intuitively—a whole new set of insecurities that lead them to expand in an organic fashion."⁵² Kaplan's comment brings some clarity to the Chinese position. China's national security interests—its perceived needs—have dramatically expanded over the last three decades since Deng replaced Mao. China's nationalist sentiment and "rapid economic growth—vital to the success of the CCP strategy—has led to increased economic inequality and dislocation, official corruption, and environmental degradation" as well as to increases in public disturbances and general societal discontentment.⁵³ Success in increasing nationalist sentiment and economic growth thus wrought higher internal expectations, greater needs, new insecurities, and the concomitant requirement for new markets and resources to meet these demands.

-

⁵² Linton Brooks et al., "China's Arrival: A Strategic Framework for a Global Relationship," 46.

⁵³ Department of Defense, *Annual Report to Congress: Military Power of the People's Republic of China*, 2.

The next chapter will discuss how from this context China has blended its objectives, instruments, and statecraft to form a cohesive foreign affairs strategy for African engagement.

Chapter 4

China in Africa

Chinese and American strategic interests in Africa overlap, with several specific issues and relationships highlighting opportunities for cooperation or potential for conflict. To understand these interests, it is necessary to grasp a broad overview of Africa's condition, to consider briefly its under-appreciated expanse, available resources, heterogeneity, historical relationship with other states, and the general status of its states in relative comparison to that of the world. The chapter will then discuss how China, within this context, blended its *objectives*, *instruments*, and *statecraft* into a foreign affairs strategy for African engagement.

Africa's Condition

Contemporary images of Africa conjure up intense juxtapositions of surplus and want, of beauty and slum, which collectively reveal so many different 'Africas':

There is Africa as 'a scar on the world's conscience': a *stricken continent* in need of charity, whose development should be seen as a moral imperative. There is Africa as a *haven for 'terrorists'*: a potentially dangerous continent that needs order and strong governments capable of effectively policing their territory. There is Africa as a *source of risks*, *threats and problems* such as war, famine, drought, migration, disease and environmental degradation: a neglected continent that needs fixing before these problems wind up on our own shores. And there is Africa as *a source of opportunity and riches* with abundant sources of minerals, energy and wildlife: a bountiful continent that is ripe for a renaissance but in need of stability and investment.¹

Indeed, as Paul Williams further notes, each of these images "serves various purposes for particular audiences, and each captures

70

¹ Williams, "Thinking About Security in Africa," 1021.

something of the multiple realities experienced by the continent's inhabitants."²

Abundant Resources

Africa is large, diverse, and complex, defying simple homogenous descriptions. After Asia, Africa is the world's second-largest continent, covering 11.7 million square miles, an area equal to over 20 percent of the earth's land mass or three and a half times the continental United States.³ As the second most-populous continent, it is home to over one billion people, comprising 800 ethnic groups and over 1,000 languages.⁴ Including the various island groups, but discounting the disputed territory of Western Sahara, there are 53 states associated with the continent of Africa.

Africa is richly endowed with mineral reserves, ranking first or second in quantity of world reserves of bauxite, chromite, cobalt, hafnium, industrial diamond, manganese, phosphate rock, platinum-group metals, soda ash, vermiculite, and zirconium. Many African nations are completely sustained on the export earnings from sales of their mineral and mineral fuels reserves. For example, in either 2006 or 2007, 90 percent or more of the export earnings for Algeria, Angola, Congo-Brazzaville, Congo-Kinshasa, Equatorial Guinea, Libya, Nigeria, and Sudan were from minerals and mineral fuels; 80 percent of the export earnings for Botswana, Chad, Guinea, Sierra Leone, and Zambia were from minerals and mineral fuels; and 50 percent of the export earnings for Gabon, Mali, Mauritania, Mozambique, and Namibia came

² ——, "Thinking About Security in Africa," 1021.

³ General William E. "Kip" Ward, "United States Africa Command: Command Brief," http://www.africom.mil/pdfFiles/Command%20Brief020810.pdf (accessed 10 March 2010).

⁴ —, "United States Africa Command: Command Brief."

⁵ Yager et al., "The Mineral Industries of Africa," 1.1.

⁶ Indeed, as Broadman notes, 1/3 of world's resource-dependent economies are in Africa. Harry G. Broadman and Gozde Isik, *Africa's Silk Road: China and India's New Economic Frontier* (Washington, DC: World Bank, 2007), 60.

from these natural resources alone.⁷ Figure 22 below reveals addition data on the specific minerals and mineral fuels, in order of value from which these export earnings accumulated, for each of these respective states. It additionally notes those states with significant economic trade with China.

Country	Area ¹ (sq kilometers)	Est. population ² (millions)	Estimated GDP (billions)	Estimated GDP per capita	Real GDP annual % change	% export earnings from minerals & mineral fuels,	Export earnings mainly from, in order of value:
Algeria	2,381,740	33.9	\$224.9	\$6,539	4.6%	90	Petroleum, natural gas
Angola	1,246,700	17	91.4	5,595	21.1%	90	petroleum, diamond
Botswana	600,370	1.9	25.8	16,516	5.7%	80	diamond, nickel, coppper, soda ash,
Chad	1,284,200	10.8	15.8	1,669	0.2%	80	petroleum
Congo (Brazzaville)	342,000	3.8	13.2	3,733	6.3%	90	petroleum
Congo (Kinshasha)	2,345,410	62.4	19.0	312	-1.6%	90	diamond, petroleum, cobalt, copper, gold
Equatorial Guinea	28,051	0.5	19.7	16,312	21.4%	90	petroleum, natural gas
Gabon	267,667	1.3	20.2	14,095	5.6%	50	petroleum, manganese
Guinea	245,857	9.4	9.7	974	1.8%	80	bauxite, gold, alumina, diamond
Libya	1,759,540	6.2	82.8	13,593	6.8%	90	petroleum, natural gas
Mali	1,240,000	12.3	13.6	1,038	3.1%	50	gold
Mauritania	1,030,700	3.1	6.0	2,011	1.0%	50	iron ore, crude petroleum, copper,
Mozambique	801,590	21.4	17.1	843	7.0%	50	aluminum
Namibia	825,418	2.1	10.6	5,250	3.6%	50	diamond, uranium, zinc, gold, copper
Nigeria	923,768	148	291.7	2,028	5.9%	90	petroleum, natural gas
Sierra Leone	71,740	5.9	4.0	693	6.8%	80	diamond, rutile, bauxite
South Africa	1,219,912	47.6	467.4	9,767	5.1%		
Sudan	2,505,810	38.6	80.5	2,167	10.2%	90	petroleum, gold
Includes data available through April 2, 2009.							
Source: U.S. Central Intelligence Agency, World Factbook 2008.							
² Source: World Bank 2007, World Development Indicators Database.							
Significant Economic Trade w/China							

Figure 22: Africa: Areal Extent and Estimated Population in 2007 Source: Author's Original Work using sources as noted above

Social, Political, and Economic Failure

Unfortunately, evidence from modern political and development indices confirms that African states are failing socially, politically, and economically. Freedom House—a Washington, D.C.-based non-

⁷ Yager et al., "The Mineral Industries of Africa," 1.7.

governmental organization that researches and advocates for civil liberties, political rights, and economic freedom—concluded in their 2010 report that Africa holds nine of the world's 20 most repressive regimes.⁸ Additionally, five of the nine countries receiving the survey's lowest possible rating for both political rights and civil liberties were from Africa, including Equatorial Guinea, Eritrea, Libya, Somalia, and Sudan.⁹ Though the distinction of most repressive region in the world by these measurements is claimed by the Middle East, Africa also realized the most significant declines in 2009, exacerbated by four states that experienced coups in the year.¹⁰ Notably, China receives the lowest possible rating for political rights from Freedom House, and the second lowest rating for civil liberties.¹¹

The Fraser Institute's *Economic Freedom of the World* report similarly determined that eight of the 10 lowest-rated nations are African, including (worst first) Zimbabwe, Angola, Republic of the Congo, Central African Republic, Guinea-Bissau, Democratic Republic of the Congo, Chad, and Niger. According to *The Failed States Index 2009* undertaken by *Foreign Policy* and The Fund for Peace, Africa is home to seven of the 10 most failing states (in descending order with worst first)

-

⁸ Freedom House, "Freedom in the World 2010: Global Erosion of Freedom," http://www.freedomhouse.org/template.cfm?page=505 (accessed 23 February 2010). The calculation of twenty most repressive nations was assessed from those nations earning the lowest possible rating in either political rights and/or civil liberties.

⁹ ——, "Freedom in the World 2010: Global Erosion of Freedom."

¹⁰——, "Freedom in the World 2010: Global Erosion of Freedom." In Sub-Saharan Africa, improvements occurred in Malawi, Burundi, Togo, and Zimbabwe while declines were noted in Botswana, the Democratic Republic of Congo, Ethiopia, Eritrea, Guinea, Lesotho, Kenya, Madagascar, Niger, and Nigeria.

^{11 ———, &}quot;Freedom in the World 2010: Global Erosion of Freedom."

¹² James Gwartney and Robert Lawson, "Economic Freedom of the World: 2009 Annual Report," (Fraser Institute, 2009). This report uses forty-two data points to measure the degree to which a nation's policies and institutions guarantee certain cornerstones of economic freedom, including personal choice, voluntary exchange, freedom to compete, and security of privately owned property. Their analysis further demonstrated that countries with more economic freedom have substantially higher per-capita incomes, attract more foreign investment, and over 20 year longer life expectancy when comparing the most economically free with the least.

Somalia, Zimbabwe, Sudan, Chad, Democratic Republic of the Congo, Central African Republic, Guinea). 13

Perhaps the most comprehensive human development indices are those used by the United Nations in their annual Human Development Report.¹⁴ The UN's Human Development Index (HDI), a composite index measuring human development and quality of life, breaks beyond traditional approaches that define third world nations as simply those with low GDP or economic wealth. 15 The HDI shifts the level of analysis, considering the human development of peoples instead of just states by incorporating fundamental factors of individual life expectancy, literacy, education, public health, and GDP per capita. ¹⁶ Three basic dimensions are thereby captured—an individual's probability of a long and healthy life, access to knowledge, and a decent standard of living—with states that have an average HDI of .9 or higher considered as developed, those below this measure as developing, and those below .5 representing the very lowest development.¹⁷ As depicted in Figure 23 below, Africa is tellingly underdeveloped, with most states unable to provide even these most basic quality of life measures.

¹³ Foreign Policy (magazine) & The Fund for Peace, "The Failed States Index 2009," http://www.fundforpeace.org/web/index.php?option=com_content&task=view&id=99&I temid=140 (accessed 25 February 2010). As proffered in Chapter 1, the most fundamental purpose of states is to provide, through sovereign government, basic internal and external security along with opportunity for the development of its populace. Although the attributes of a failing state are controversial, The Fund for Peace proposes that a failing state is characterized by social, political and economic failure and thus ranks nations based on four social, two economic, and six political indicators to measure a state's vulnerability to conflict or collapse.

¹⁴ The UN also considers four additional measures beyond the HDI described in this analysis, including two focused on human poverty and two on gender-related or empowerment measures.

¹⁵ United Nations, "Human Development Report 2009. Overcoming Barriers: Human Mobility and Development," 14, 208.

¹⁶ ——, "Human Development Report 2009. Overcoming Barriers: Human Mobility and Development," 14, 208.

¹⁷——, "Human Development Report 2009. Overcoming Barriers: Human Mobility and Development," 15.

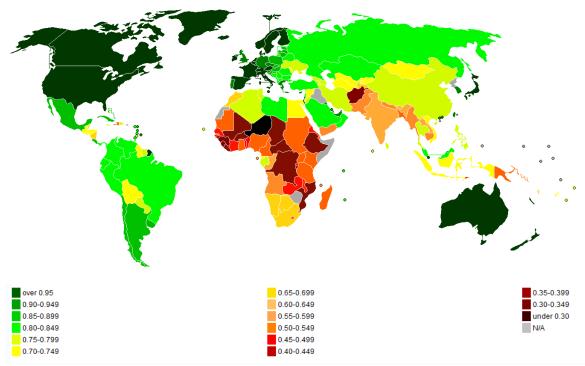


Figure 23: World Map indicating Human Development Index Source: http://en.wikipedia.org/wiki/Human_Development_Index; based on UNDP's 2007 HDI data

African Security Challenges & Foreign Opportunities

African security challenges involve a portfolio of threats generally not experienced in developed countries, including piracy, trafficking, terrorism and extremism strongholds, ethnic strife, massive ungoverned areas, rapid urbanization, and pandemic disease. Those states with a modicum of economic independence and security capability are also typically those most reliant on a single source of income via sales of minerals and mineral fuels. While such sales increase the GDP of a given state, the revenue volatility for these resource-rich states, when combined with rampant internal corruption, largely inhibits any consistency in resolving the societal demands of their populace racked with severe poverty. The multiplying effect of these security factors,

75

¹⁸ General William E. "Kip" Ward, "United States Africa Command: Command Brief.", Amy Richmond Krakowka and Laurel J. Hummel, *Understanding Africa: A Geographic Approach*, ed. Center for Strategic Leadership (United States Military Academy, January 2009), 351.

coupled with pre-existing instabilities, threatens to further destabilize and delegitimize even the most stable of African governments, quickly inundating the capabilities of their thinly staffed bureaucracies and necessitating greater dependence on foreign assistance.¹⁹ The National Intelligence Council's *Global Trends 2025* report forecasts that this confluence of instability, fragile governments, and diverse threats will likely continue unabated:

In 2025, Sub-Saharan Africa will remain the most vulnerable region on Earth in terms of economic challenges, population stresses, civil conflict, and political instability. The weakness of states and troubled relations between states and societies probably will slow major improvements in the region's prospects over the next 20 years unless there is sustained international engagement and, at times, intervention.²⁰

African states are in sore need of qualitative and quantitative assistance, with little to offer currently in return beyond access to minerals and mineral fuel resources. In addition, an exacerbating security trend for Africa is *competition* for such minerals, for "unprecedented global economic growth—positive in so many other regards—will continue to put pressure on a number of *highly strategic resources*"²¹ (emphasis mine).

Nature of Historical Relationships in Africa

Africa is geographically distant and geopolitically separated such that it is outside of both Chinese and US primary spheres of influence. Africa's energy and mineral resources represent significant interest to the Chinese and to the United States. In order to sustain continued economic growth, both the United States and China pursue foreign

¹⁹ General William E. "Kip" Ward, "United States Africa Command: Command Brief.", Amy Richmond Krakowka and Hummel, *Understanding Africa: A Geographic Approach*, 351.

²⁰ Office of the Director of National Intelligence, "Global Trends 2025: A Transformed World," in *NIC* 2008-003 (November 2008).

²¹ ——, "Global Trends 2025: A Transformed World," viii, 84.

policies that ensure reliable imports of certain commodities, especially those of minerals and petroleum.

The United States and China are relative newcomers to Africa. In the fifteenth century, Portugal initiated trade relationships along the coastline cities of Africa. For about two centuries it dominated trade along the West African coast. With the advent of the slave trade, the British, French, Spanish, and Dutch rapidly increased their African engagement, building trading forts or settlements and projecting further inland.

At the end of the nineteenth century, three other European states—Germany, Italy, and Belgium—joined in the "Scramble for Africa."22 This race to acquire territory contrasted sharply with settler colonialism as previously conducted in North America. This was exploitation colonialism—a scramble to claim unique African raw materials and exploit cheap indigenous labor necessary to extract resources for use in European industrialized factories. Old European rivalries—catalyzed by demand for raw materials unavailable in Europe and enabled by technological advancements in areas of transportation (steam ships and railroads), communication (telegraphs), and medicine (such as quinine to treat malaria)—conquered and subjugated nearly the entire continent in just two decades.²³ From the 1880s through the beginning of World War I in 1914, European states rapidly partitioned Africa, transitioning from informal imperialism, itself preserved through economic dominance and military influence, to direct colonial rule.²⁴ Decolonization followed in the aftermath of World War II, with the

_

²² The term "Scramble for Africa" is often attributed to this author and book: Thomas Pakenham, *The Scramble for Africa, 1876-1912*, 1st US ed. (New York: Random House, 1991).

²³ Pakenham, *The Scramble for Africa*, 1876-1912, 18, 114, 65-66.

²⁴ Kevin Shillington, *History of Africa*, Rev. 2nd ed. (New York: Palgrave Macmillan, 2005), 301.

French, British, and Portuguese each fighting guerilla wars in an attempt to retain the last vestiges of a lost empire.

US Relationship

Outside of the trans-Atlantic slave trade, the United States has historically invested comparatively little in terms of long-term intellectual, moral, or economic capital in Africa. The end of the Cold War reduced what little interest existed even further. As an example, just 15 years ago the US Security Strategy for Sub-Saharan Africa stated the United States had "very little traditional strategic interests in Africa." Africa remained a peripheral concern to the United States. For example, until the creation of US Africa Command (AFRICOM) in October 2007, US military interests in Africa remained divided between three separate geographic commands whose primary concerns lay elsewhere in Europe, the Pacific, or the Middle East.

9/11 dramatically shifted US context as leaders discovered that African security issues—including ethnic strife, large ungoverned areas, pandemic disease, irregular militaries, illicit trafficking, and extremist or terrorist activities—are global security challenges.²⁶ In fact, the 2006 release of the National Security Strategy of the United States of America concluded that when these security issues are left unaddressed, "these different causes lead to the same ends: failed states, humanitarian disasters, and ungoverned areas that can become safe havens for terrorists."²⁷

Most African states are unable to sufficiently address these respective internal challenges. The creation of AFRICOM provided capacity for dedicated focus on US national interests in Africa. Given the

²⁵ U.S. Department of Defense, United States Security Strategy for Sub-Saharan Africa (Washington: DOD, Office of International Security Affairs, August 1995), 3.

²⁶ General William E. "Kip" Ward, "United States Africa Command: Command Brief."

²⁷ "National Security Strategy of the United States of America,"

http://www.strategicstudiesinstitute.army.mil/pdffiles/nss.pdf (accessed 20 May 2010).

inability of most African states to address sufficiently their respective internal challenges, AFRICOM's unique formulation, "based on the premise that interagency partner integration leads to better planning and greater unity of effort by all USG stakeholders" allows for a holistic approach of state support for programs involving disaster preparedness, humanitarian assistance, peacekeeping, pandemic response programs, counternarcotics, and counterterrorism. Notably the military is the lead agency, while the interagency partners of the State Department, USAID, and Homeland Defense provide supporting and advisory roles. In other words, the largest US mechanism for engaging with Africa on a continual basis carries a substantial military flavor, though less than other regional commands. 29

Chinese Relationship

Past injustices, the vicariousness of the Superpowers (and now, American hegemony) and the 'unfair' global economic and political system have all been cited as preventing China regaining its 'rightful place'. As a result, China has attempted to construct linkages with the developing world as Sino-African relations since the 1960s...

Ian Taylor

As Taylor notes, Chinese relations with Africa are not new. Indeed, Beijing first initiated bilateral assistance to Africa in 1956 and by its own accounts, China funded over 800 projects between 1957 and 2008.³⁰ By

²⁸ General William E. "Kip" Ward, "United States Africa Command - Commander's Intent 2010," (January 2010),

http://www.africom.mil/pdfFiles/Commander's%20Intent%20January%202010.pdf (accessed 10 February 2010).

²⁹ Space does not accommodate full review of US relationship with Africa and is beyond the scope of this analysis. For more on this subject, see Lauren Ploch, *Africa Command: US Strategic Interests and the Role of the US Military in Africa*, Congressional Research Service (CRS) report for Congress, RL34003 (Washington, DC: CRS, 16 May 2007).

³⁰ Elizabeth C. Economy in United States. Congress. Senate. Committee on Foreign Relations. Subcommittee on African Affairs., China in Africa: Implications for U.S. Policy: Hearing before the Subcommittee on African Affairs of the Committee on Foreign

some accounts, China's "long history in post-independence Africa gives China legitimacy and credibility among many Africans," while the United States is associated with the negative connotations of other Western colonial powers.³¹

As this section will cover, the relational principles China uses in foreign affairs have not changed since the mid-1950s. However, the objectives, statecraft, and instruments used in this relational model, and the scope of engagement, have adjusted. Under Chairman Mao, China actively supported national independence and liberation movements in Africa, Asia, and Latin America. The transition under Deng was initially isolationist, focusing attention on domestic concerns and pragmatic economic reform. Strong economic growth throughout the 1980s and 1990s afforded the opportunity to expand investments and economic support abroad. In 1997 Premier Li Ping captured the nuances of this shift, avowing that "China's basic policy of providing aid to Africa has not changed [but] ... China's policy has moved from aid donation to economic cooperation for mutual benefit."³²

In the decade since Li's pronouncement, bilateral trade between Africa and China has increased dramatically, rising from approximately \$10B in 2000 to nearly \$70B in 2007.³³ Between 1999 and 2004, African exports to China grew 48 percent annually, with five oil- and mineral-exporting countries accounting for 85 percent of these exports.³⁴

_

Relations, United States Senate, One Hundred Tenth Congress, second session, June 4, 2008 (Washington: U.S. G.P.O.: For sale by the Supt. of Docs. U.S. G.P.O., 2008), 9.

³¹ Brautigam, *The Dragon's Gift: The Real Story of China in Africa*, Hairong, *East Mountain Tiger, West Mountain Tiger: China, the West, and "Colonialism" in Africa*, 5-17, 21.

³² Premier Li Ping, as quoted in Deborah Brautigam, "China's African Aid: Transatlantic Challenges," *German Marshall Fund Paper Series* (April 2008): 12.

³³ Elizabeth C. Economy in United States. Congress. Senate. Committee on Foreign Relations. Subcommittee on African Affairs., *China in Africa: Implications for U.S. Policy: Hearing before the Subcommittee on African Affairs of the Committee on Foreign Relations, United States Senate, One Hundred Tenth Congress, second session, June 4, 2008*, 9.

³⁴ Broadman and Isik, *Africa's Silk Road: China and India's New Economic Frontier*, 11-12.

China is now Africa's second largest trading partner and is estimated to surpass the United States this year.³⁵ Direct investment in Africa increased from \$491 million in 2003 to over \$2.5 billion three years later.³⁶ Between 2000 and 2005, the EU's share of African exports halved, while Asia's portion nearly doubled from 14 percent to 27 percent; the US share of Africa's exports is 29 percent to the EU's 32 percent.³⁷

China's Relational Principles

The conduct of Beijing's foreign policy and its relations with other nations has historically been grounded in a set of relational principles.

Known as the "Five Principles of Mutual Coexistence," they include:

- 1. Mutual respect for each other's territorial integrity
- 2. Mutual non-aggression
- 3. Non-interference in each other's internal affairs
- 4. Equality and mutual benefit
- 5. Peaceful coexistence

Originally these principles were prescribed in 1954 to resolve Chinese-Indian relations, particularly *vis-à-vis* their joint dispute over Tibet.³⁸ However, at the Asian-African Conference convened less than one year later in Bandung, Indonesia, the CCP expanded these principles to include relations with all non-Communist developing countries.³⁹

More than 50 years later, Chinese leaders still point to these principles as fundamental influences on their strategy of aid and

³⁵ Elizabeth C. Economy in United States. Congress. Senate. Committee on Foreign Relations. Subcommittee on African Affairs., *China in Africa: Implications for U.S. Policy: Hearing before the Subcommittee on African Affairs of the Committee on Foreign Relations, United States Senate, One Hundred Tenth Congress, second session, June 4, 2008*, 9.

³⁶ Elizabeth C. Economy in ———, China in Africa: Implications for U.S. Policy: Hearing before the Subcommittee on African Affairs of the Committee on Foreign Relations, United States Senate, One Hundred Tenth Congress, second session, June 4, 2008, 9.

³⁷ Broadman and Isik, Africa's Silk Road: China and India's New Economic Frontier, 2,

³⁸ Brautigam, *The Dragon's Gift: The Real Story of China in Africa*, 30.

³⁹ Taylor, China and Africa: Engagement and Compromise, 18-20.

economic engagement. Indeed, they form a critical component of how Chinese officials position their African engagement versus US efforts. China's Africa Policy, released in January 2006 by the Ministry of Foreign Affairs, prominently highlights China's adherence to the Five Principles of Peaceful Coexistence in developing "a new type of strategic partnership with Africa." These long-standing principles also help explain Chinese resistance to Western demands that they impose political conditions on their aid. Chinese leaders frequently reference this notion of *equality and mutual benefit* when referencing Sino-African relations, maintaining that their economic relations are a partnership rather than a one-way transfer of charity.

In contemporary context China has packaged these principles to capitalize on a growing, powerful, and enticing image of a benign China assuming the role of the leading developing state. With a fusion and flurry of diplomacy, economic trade incentives, and cultural and educational exchanges, China has projected a new model of economic and social success⁴¹: "To the degree China's development is changing China it is important; but what is far more important is that China's new ideas are having a gigantic effect outside of China. China is marking a path for other nations around the world who are trying to figure out not simply how to develop their countries, but also how to fit into the international order in a way that allows them to be truly independent, to

_

⁴⁰ Ministry of Foreign Affairs of the People's Republic of China (PRC), "China's African Policy," http://www.mfa.gov.cn/eng/zxxx/t230615.htm (accessed 10 February 2010). ⁴¹ For perspective on how China has additionally leveraged these elements of soft power in other regions of the world, such as Southeast Asia and Latin America, see Joshua Kurlantzick, *Charm Offensive: How China's Soft Power is Transforming the World* (New Haven: Yale University Press, 2007). Denmark alternatively believes this is an overblown and exaggerated fad, an attempt by China to improve its negative overseas image through purposeful manipulation and an effort that has not gained as much traction as Kurlantzick affords it. Fellow with the Center for a New American Security (CNAS) and Director of the Asia-Pacific Security Program Abraham M. Denmark, *Interview with Author.* (Washington, D.C.: 2 April 2010).

protect their way of life and political choices in a world with a single massively powerful centre of gravity."42

Joshua Ramo refers to this power development as the Beijing Consensus. Ramo contends the Beijing Consensus merges economic ideas with "politics, quality of life, and the global balance of power," essentially presenting a new development paradigm that challenges Western development ideas and preservation of the status quo.⁴³ He thus positions it as a legitimate, capable counterweight to the Washington Consensus—an economic model he argues developing states find too prescribed and stolid to adjust to their unique societal contexts.⁴⁴ Deborah Brautigam reigns in Ramo's analysis slightly, arguing that while the Washington Consensus policies of "liberalization, privatization and structural adjustment never quite achieved legitimacy as a development model in Africa," the Chinese government-guided model still remains unproven as a viable and clearly identifiable alternative.⁴⁵ Western perceptions aside, the question remains: Do African states find the Beijing Consensus an attractive alternative?

The Office of the Director of National Intelligence thinks that African states will increasingly subscribe to the Beijing model. Their 2025 predictions estimate a trend of slowing democratization, with China in particular offering "an alternative model for political development in addition to demonstrating a different economic pathway. This model may prove attractive to under-performing authoritarian regimes, in addition to weak democracies frustrated by years of economic underperformance."46 Denmark argues that in this regard, the success

⁴² Joshua Cooper Ramo, "The Beijing Consensus," The Foreign Policy Centre (2004): 3,

^{43 ——, &}quot;The Beijing Consensus," 5, 60.
44 ——, "The Beijing Consensus."

⁴⁵ Brautigam, *The Dragon's Gift: The Real Story of China in Africa*, 16.

⁴⁶ Office of the Director of National Intelligence, "Global Trends 2025: A Transformed World," 12. In less politicized terms, the Congressional Research Service also notes that China's is "perceived as representing an alternative, non-democratic model of

of the Beijing Consensus is not in actually competing with the US model, but in filling the vacuum where the United States is not present.⁴⁷

Objectives

Objectives must account for a state's ability to follow through with sufficient power.⁴⁸ Organski observed that "...a nation can increase its power by shrewdly estimating its exact power relative to other nations, by knowing just what it can and cannot do, and by making the most of a past reputation or a future promise of power."⁴⁹ In pursuing its national interests then, a state should account for its comprehensive national power in light of the international environment and what it might achieve given this context. For this reason, "objective setting takes place at the *intersection of power and interests*, the place where strategy becomes the art of the possible"⁵⁰ (emphasis mine).

When China's comprehensive national power and its national interests—including CCP perpetuation, economic growth and development, domestic stability, defense of territorial integrity and sovereignty, and securing geopolitical influence—are juxtaposed with relation to its policies and actions in Africa, four major objectives become apparent. These objectives include guaranteeing access to natural resources, expanding available markets for domestic exports, solidifying African support of Chinese interests in international regimes, and maintaining or expanding Taiwan's diplomatic isolation.⁵¹

development." Thomas G. Lum, Comparing Global Influence: China's and U.S. diplomacy, Foreign Aid, Trade, and Investment in the Developing World, Congressional Research Service (CRS) report for Congress, RL34620 (Washington, D.C.: CRS, 2008).

(CRS-2)

⁴⁷ Abraham M. Denmark, *Interview with Author*.

⁴⁸ Deibel, Foreign Affairs Strategy: Logic for American Statecraft, 296.

⁴⁹ Organski, World Politics, 111.

⁵⁰ Deibel, Foreign Affairs Strategy: Logic for American Statecraft, 296.

⁵¹ Ampiah and Naidu viewed China's global agenda as driven by three imperatives, including "access to raw materials, market opportunities, and a greater role in international relations." See Ampiah and Naidu, *Crouching Tiger, Hidden Dragon?: Africa and China*, 24. Thomas J. Christensen, Deputy Assistant Secretary of State for East Asian and Pacific Affairs, and his colleague, James Swan, Assistant Secretary of State for African Affairs similarly found that China's objectives for Africa include the

China's African Policy establishes that its new strategic partnership with Africa will proceed "from the fundamental interests of both the Chinese and African peoples" and will feature "political equality and mutual trust, economic win-win cooperation and cultural exchange." The white paper proposes cooperation with Africa on a complete set of economic issues, including trade, investment, debt reduction and relief, enhancement of Africa's position in multilateral trade systems and financial institutions, and various cooperative measures for finance, agriculture, tourism, and resources.

This promulgated policy of partnership, win-win cooperation, and full-spectrum economic engagement contrasts sharply with the primary contention that China's is predominantly scrambling to acquire and lock-down resources to feed into its own economy. This next section will aim to separate the rhetoric from the reality, first by reviewing China's more visible economic aspects of trade and investment and then by considering how China has employed other instruments of power with selective statecraft mechanisms to engage across the entire continent.

China's Engagement across the Continent

Congressional testimony regarding China's activity in Africa reveals that the vast majority of China's trade (almost 90 percent) involves just seven countries—including, in order of highest export values, Angola, South Africa, Sudan, Republic of Congo, Equatorial Guinea, Nigeria, and Gabon.⁵³ Notably, five of the seven countries (excepting Gabon and

desire "to secure supplies of natural resources and markets for Chinese exports in Africa; to increase China's power and prestige on the international stage as a leader of the developing world; and to compete with Taiwan for diplomatic recognition by African states." Thomas J. Christensen and James Swan in United States. Congress. Senate. Committee on Foreign Relations. Subcommittee on African Affairs., *China in Africa: Implications for U.S. Policy: Hearing before the Subcommittee on African Affairs of the Committee on Foreign Relations, United States Senate, One Hundred Tenth Congress, second session, June 4, 2008*, 4.

⁵² Ministry of Foreign Affairs of the People's Republic of China (PRC), "China's African Policy."

⁵³ Joseph R. Biden, Jr. in United States. Congress. Senate. Committee on Foreign Relations. Subcommittee on African Affairs., *China in Africa: Implications for U.S. Policy:*

South Africa) are more than 90 percent reliant on exports of minerals and mineral fuels. Two of these countries—South Africa and Nigeria are Africa's regional superpowers, together accounting for 55 percent of Africa's economic activity.⁵⁴ Oil dominates Sub-Saharan African exports to China, representing 62 percent of total exports; minerals such as iron ore, manganese ores and concentrates, copper, aluminum, and other base metals represent approximately 15 percent; agricultural products represent slightly over 10 percent of exports to Asia. 55

In accounting for Chinese involvement, strategists must be cautious not to project Western models of foreign affairs and engagement with developing states onto Chinese efforts. Such mirror-imaging would cause strategists to miss the holistic aspects of the Chinese, for "while the United States may view the various aspects of China's international power—economic, political, and military—as discrete, Chinese strategists view these policy arenas as parts of an integrated whole."56

Investments in resource extraction industries are incredibly complex, capital intensive, and generally long-term. The Chinese method of initiating such enterprises is with "government-to-government agreements followed by corporate engagement, frequently by [stateowned enterprises]."57 Consider, for example, that 88 percent of all Chinese firms engaged in foreign direct investment abroad in 2005 were provincial-government owned.⁵⁸ Moreover, recent survey data revealed that for those Chinese firms investing in Africa, the most important determinant of their investment decisions after "market seeking" was

Hearing before the Subcommittee on African Affairs of the Committee on Foreign Relations, United States Senate, One Hundred Tenth Congress, second session, June 4, 2008, 40, Broadman and Isik, Africa's Silk Road: China and India's New Economic Frontier, 85.

⁵⁴ Broadman and Isik, Africa's Silk Road: China and India's New Economic Frontier, 61.

^{–,} Africa's Silk Road: China and India's New Economic Frontier, 118.

⁵⁶ Lindsay Ford in Linton Brooks et al., "China's Arrival: A Strategic Framework for a Global Relationship," 146-47.

⁵⁷ Broadman and Isik, Africa's Silk Road: China and India's New Economic Frontier, 305.

⁵⁸ ———, Africa's Silk Road: China and India's New Economic Frontier, 305.

"Chinese government support." Dr. Harry Broadman, Economic Adviser in the Africa Region at the World Bank, concluded that Chinese and Indian foreign firms exhibit the most rapid growth in combining trading and investment in collective economic packages. 60

Chinese Aid to Africa

Separating Chinese aid from investment and trading is difficult. Brautigam rightly contends that drawing exact links based on the "notion that aid is offered mainly as a quid pro quo exchange for resources, or that the Chinese are *only* interested in countries with resources ignores several facts." In other words, Chinese efforts cannot be lumped into one consistent methodology of aid exchanged for resources, but rather involves an array of combinations involving other strategic interests. China is well aware that Africa's 53 distinct states represent over one quarter of the voting bloc in the UN's General Assembly. African states, by agreement, also hold 3 of the 10 non-permanent seats on the UN's Security Council.

An example of China's strategy reaching beyond resource acquisition is demonstrated in the diagram below, which shows that China provides aid to every country in Sub-Saharan Africa that publicly sanctions its One China policy.

⁵⁹ ———, Africa's Silk Road: China and India's New Economic Frontier, 305.

^{60 — ,} Africa's Silk Road: China and India's New Economic Frontier, 300.

⁶¹ Brautigam, The Dragon's Gift: The Real Story of China in Africa, 278.

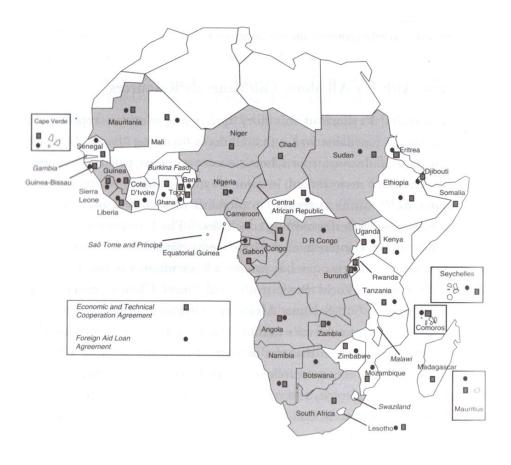


Figure 24: China's Aid Agreements in Sub-Saharan Africa, 2006-2007 Source: Deborah Brautigam, The Dragon's Gift: The Real Story of China in Africa, 278

A short background is necessary to frame the context for why China conducts this policy. After the Tiananmen Square incident in 1989, Taiwan was well-positioned with abundant foreign reserves to capitalize on international rebuke of China's violent suppression of student demonstrations. Won over by Taiwan's checkbook diplomacy efforts, seven countries re-established relations with Taiwan by the end of 1990, including the African nations of Liberia, Guinea-Bissau, and Lesotho. The Chinese responded by severing diplomatic ties and for the next 15 years, China and Taiwan escalated their aid-for-recognition

^{62 ——, &}quot;China's African Aid: Transatlantic Challenges," 11.

⁶³ ——, "China's African Aid: Transatlantic Challenges," 11.

rivalry. Figure 25 below summarizes this exchange from 1999 to present.

Countries that Broke with Beijing to Establish Ties with Taipei	Countries that Broke with Taipei to Establish ties with Beijing
1989-Liberia (second)*	1993-Liberia (second)
1990-Guinea-Bissau	1994-Lesotho (second)
1990-Lesotho (second)*	1996-Niger (second)
1991-Central African Republic (third)*	1998-Central African Republic (third)
1992-Niger (second)	1998-Guinea-Bissau
1994-Burkina Faso	1998–South Africa
1996-The Gambia	2003-Liberia (third)
1996-Senegal (second)	2005-Senegal (second)
1997-Chad (second)	2006-Chad (second)
1997-Liberia (third)	2008-Malawi
1997-Sao Tome and Principe	Swaziland is the only African country that has never established diplomatic relations with Beijing.

^{*} These countries had previously had relations with Taipei, and broken them to establish relations with Beijing.

Source: Author's research and Chung-lian Jiang, "Beijing and Taipei, the African Challenges," http://www.african-geopolitics.org/show.aspx?articleid=3584 [n.d.]

Figure 25: "Dollar Diplomacy:" Beijing-Taipei Rivalry in Africa, 1989 to 2008 Source: Deborah Brautigam, China's African Aid: Transatlantic Challenges, 12

Brautigam also maintains that Chinese planners—well aware by the early 1990s of how resource scarcities would soon impact domestic production—positioned China to address this shortcoming.⁶⁴ One of the first steps taken by the Chinese government in 1994 was separating state-owned banks into two fields: those that would execute the government's policies and those that would operate based on standard commercial principles.⁶⁵ The designated policy banks—including the China Development Bank, China Export Import Bank (Eximbank), and China Agriculture Bank—enabled China to intervene in selective market

⁶⁴ ——, "China's African Aid: Transatlantic Challenges," 11.

^{65 ——, &}quot;China's African Aid: Transatlantic Challenges," 11. Brautigam argues these banks were split for several additional reasons: China's upcoming bid at the turn of the century to join the World Trade Organization, concern over deterioration of aid projects once the Chinese left and the political ramifications of project failures.

areas ignored or overlooked by the market.⁶⁶ China thus began targeting internal and overseas development of agriculture, industry, and infrastructure using a hybrid of financial tools and incentivizing mechanisms.⁶⁷ The CCP also added three unique instruments to its basket of economic assistance tools:

- concessional loans with interest subsidized by the Chinese government
- government-supported joint ventures and equity stakes in productive projects
- grants, primarily for countries with economic difficulties or crises⁶⁸

Many comparisons of Chinese aid versus US aid to Africa fail to account for these non-traditional economic engagement methods. Chinese aid is also difficult to access, complicated by lack of governmental transparency, disparities between actual and pledged aid, and the complexity of China's network of aid and economic cooperation.⁶⁹

Some estimates for China's overseas direct assistance (ODA) range from \$1.5 to \$2 billion annually, compared to the US core-ODA budget (excluding military assistance) of \$19.5 billion in FY2007.⁷⁰ As the Congressional Research Service (CRS) notes, this assessment fails to consider how the Chinese package aid for other states, typically including a combination of trade deals, state-sponsored investments, and

^{66 ——, &}quot;China's African Aid: Transatlantic Challenges," 11, Brautigam, *The Dragon's Gift: The Real Story of China in Africa*, 79-80.

⁶⁷ Brautigam, "China's African Aid: Transatlantic Challenges," 11, Brautigam, *The Dragon's Gift: The Real Story of China in Africa*, 79-80.

⁶⁸ Brautigam, "China's African Aid: Transatlantic Challenges," 11.

⁶⁹ For an excellent description and diagram of China's system of aid and economic cooperation, see ———, *The Dragon's Gift: The Real Story of China in Africa*, 108.

⁷⁰ Lum, Comparing Global Influence: China's and U.S. diplomacy, Foreign Aid, Trade, and Investment in the Developing World, 4.

concessional loans.⁷¹ When these elements are included, Chinese aid may significantly surpass US ODA, with one study showing Chinese economic assistance of \$31 billion to African, Southeast Asia, and Latin American states in 2007—three times its 2005 assistance and 20 times higher than assistance in 2003.⁷²

In comparison to CRS assessments, Brautigam finds Chinese total official financial flows to Africa as close to equivalent, though still less than total commitments by Europe. Brautigam's calculations also show that China's Eximbank—notably the largest, but not the sole Chinese financier in Africa—now provides equivalent volume in lending to African states as the World Bank.⁷³ It is also the world's largest export credit agency associated with a state, with total credits nearly doubling those of the US Eximbank.⁷⁴

By any of these measurements, Chinese lending efforts are significant and trending towards surpassing other dominant actors on the continent. Moreover, in following their Five Principles of Peaceful Coexistence, Chinese aid packages are unencumbered by Western restrictions of democracy, good governance, and transparency. In this vein, "Chinese foreign assistance is attractive to many developing

⁷¹ ———, Comparing Global Influence: China's and U.S. diplomacy, Foreign Aid, Trade, and Investment in the Developing World, 4.

⁷² ———, Comparing Global Influence: China's and U.S. diplomacy, Foreign Aid, Trade, and Investment in the Developing World, 4.

⁷³ Brautigam, *The Dragon's Gift: The Real Story of China in Africa*, 179-82. Note that each offer different types of lending: The World Bank predominantly offers concessional lending and actual loans; China's Eximbank primarily offers seller's credits and guarantees, with the bulk of loans focused on export promotion. Brautigam concludes that Chinese loans "closely fit a country's ability to repay," with concessional loans offered to those states with rich natural resources to serve as collateral and grants or zero-interest loans provided to smaller, poorer states; exceptions include projects like factories or dams where the revenues might serve to guarantee repayment. Her meetings with the Eximbank president also reveal a stark difference in the Chinese understanding of development. Whereas the Chinese rely on assessments of development or dynamic sustainability based on their own economic experience in the last three decades, the IMF and World Bank focus on an "overly static" methodology of debt sustainability. See Brautigam, *The Dragon's Gift: The Real Story of China in Africa*, Chapter 6.

⁷⁴ Brautigam, *The Dragon's Gift: The Real Story of China in Africa*, 113.

countries because it generally does not require changes in the policies or performance of recipient countries' governments."⁷⁵

Going Global

Resources matter, but China's "mutual benefit" approach is about generating business.

Deborah Brautigam⁷⁶

In the approach to its WTO admittance in December 2001, China released its tenth five-year plan, a globalization blueprint that formally directed Chinese companies to "go global." The CCP provided government support of national Chinese companies, nurturing and accelerating their progression into sophisticated, brand-name, globally competitive firms. Eximbank and the China Development Bank, for example, offered low-cost loans for overseas expansion and to assist in bids for overseas construction projects. These bank efforts have grown substantially within the last decade. In mid-2007, the China Development Bank launched its initial phase of the China-Africa Development Fund, an equity account reportedly funding \$5 billion over time by incrementally investing between \$5 and \$50 million in bilateral projects. The second stream of the china second second

Resource exploration was just one arena of government support. Other activities and projects advocated by the government included agriculture, mining, manufacturing, electricity, telecommunications, transportation, and urban infrastructure.⁸⁰ To further incentivize overseas investment by Chinese corporations, the government also

⁷⁵ Lum, Comparing Global Influence: China's and U.S. diplomacy, Foreign Aid, Trade, and Investment in the Developing World, 4.

⁷⁶ Brautigam, The Dragon's Gift: The Real Story of China in Africa, 279.

⁷⁷ Brautigam, *The Dragon's Gift: The Real Story of China in Africa*, 87-88.

^{78 ———,} The Dragon's Gift: The Real Story of China in Africa, 87-88.

⁷⁹ ———, The Dragon's Gift: The Real Story of China in Africa, 94.

^{80 ———,} The Dragon's Gift: The Real Story of China in Africa, 93-94.

"promised diplomatic support, export tax exemptions, help with risk assessments, easier emigration approvals, and insurance."81

Diplomacy & Statecraft

China's primary venue of diplomatic support is the Forum on China-Africa Cooperation (FOCAC). FOCAC was first held in 2000, with meetings held triennially thereafter. In Congressional testimony, Senator Feingold maintained FOCAC serves "as a clear indication of China's commitment to this part of the world" and State Department representatives concluded it is the "primary public relations vehicle for promoting [China's] African presence."82 The latter statement undervalues the extent of FOCAC's influence by limiting it to a public relations role. Rather, FOCAC serves as a diplomatic and economic venue and as a regional counterbalancing effort. The 2006 summit brought 48 delegations, with 43 African states represented by their heads of state or government.83

The address by Chinese President Hu Jintao at this summit outlined an ambitious eight-point proposal for supporting African development, including, among other things: doubling 2006 levels of assistance by 2009; providing \$5 billion in preferential loan and buyer's credits; establishing three to five economic cooperation zones in Africa; establishing a \$5 billion China-Africa development fund to support Chinese business investment in Africa; cancelling of debt for government loans owed by heavily indebted poor states and least developed countries with diplomatic ties with China—i.e. those states acknowledging the One China policy; and opening up China's market to Africa by increasing the

———, The Dragon's Gift: The Real Story of China in Africa, 87-88.

⁸² Russell D. Feingold, James Swan, and Thomas J. Christensen in United States. Congress. Senate. Committee on Foreign Relations. Subcommittee on African Affairs., China in Africa: Implications for U.S. Policy: Hearing before the Subcommittee on African Affairs of the Committee on Foreign Relations, United States Senate, One Hundred Tenth Congress, second session, June 4, 2008, 1, 9.

⁸³ Lum, Comparing Global Influence: China's and U.S. diplomacy, Foreign Aid, Trade, and Investment in the Developing World, 40.

number of zero-tariff export items from 190 to over 440—again contingent on diplomatic relations with China.84

China has matched its economic activity with "an extraordinary level of diplomatic initiative ... [and an] endless stream of highly polished diplomatic forays by China's top leaders to Africa."85 Strategic Forecasting (StratFor), an independent international security assessment firm, estimated two-thirds of these senior-level visits to African states in 2005 and 2006 involved securing energy and geopolitical arrangements; the remaining one third included goodwill and mediation efforts.86 Economics was a significant driver of Chinese visits. However, another significant pursuit was gaining geopolitical influence amongst those African states and leaders with continental and regional leadership roles, as well as through recruitment of "reliable voting allies" amongst current African voting members of the UN Security Council, including the Congo, Ghana, and Tanzania who were all serving two-year terms.⁸⁷

StratFor concludes that "China's deployment of senior-level representatives to Africa highlights the considerable amount of political capital China devotes to achieving its economic and geopolitical interests in Africa."88 Their summary of these visits is included in Figure 26 below. The frequency and type of official Chinese and US visits to Africa illustrates both the breadth of China's engagement in Africa, as well as how differently the states package their strategies.

⁸⁴ Hu Jintao, "Full text of President Hu's Speech at China-Africa Summit" http://www.gov.cn/misc/2006-11/04/content_432652.htm (accessed 5 May 2010). 85 Elizabeth Economy in United States. Congress. Senate. Committee on Foreign Relations. Subcommittee on African Affairs., China in Africa: Implications for U.S. Policy: Hearing before the Subcommittee on African Affairs of the Committee on Foreign Relations, United States Senate, One Hundred Tenth Congress, second session, June 4, 2008, 27.

⁸⁶ Stratfor, "China: Engagement for Africa,"

http://www.stratfor.com/china_engagement_africa (accessed 22 February 2010).

^{87 ——, &}quot;China: Engagement for Africa." 88 ——, "China: Engagement for Africa."

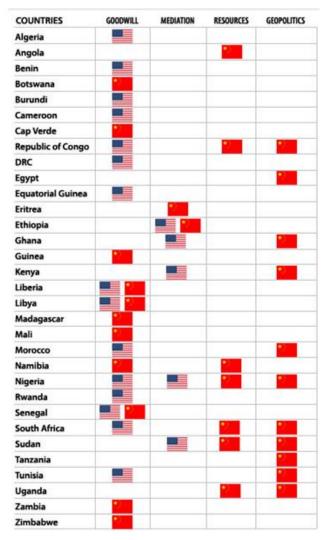


Figure 26: Senior US & Chinese Visits to Africa, 2005-06 Source: Strategic Forecasting, "China: Engagement for Africa"

Instruments of Power & Conclusion

[The Chinese] believe in investment, trade, and technology as levers for development, and they are applying these same tools in their African engagement, not out of altruism but because of what they learned at home...

Deborah Brautigam⁸⁹

China's pragmatic statecraft, detailed throughout this chapter, involves direct government intervention in linking and comprehensively

⁸⁹ Brautigam, The Dragon's Gift: The Real Story of China in Africa, 311.

packaging commerce, foreign aid, trade, and diplomacy in overseeing the preservation of its domestic economic growth and the expansion of its geopolitical and economic influence. It becomes clear that "Africa fits into the strategy of 'going global,' not simply for its natural resources, but for opportunities in trade, construction, industry: *business*. The Chinese are linking business and aid in innovative ways."⁹⁰

China's holistic approach, in war and in peace, is to utilize every instrument of power in preserving and promoting continuing advantage. 91 For the Chinese, "war is not only a military struggle, but also a comprehensive contest on fronts of politics, economy, diplomacy, and law."92 The primary difference in peacetime is simply the absence of overt military struggles. This all-embracing, multi-dimensional strategy is aptly summed by Tellis Swaine, a RAND analyst. China is neither assertive nor cooperative reasons Swaine, but highly calculative, with "an outward-oriented pragmatism designed to rapidly improve its domestic social conditions, increase the legitimacy of its governing regime, enhance its national economic and technological capabilities, and thereby ultimately strengthen its military prowess and improve its standing and influence in the international political order."93 China pursues "constrained maximization," seeking without provocation to increase its comprehensive national power in a variety of areas and "avoid precipitating regional or global responses that might retard the growth of that power."94

_

⁹⁰ Emphasis in original. ———, *The Dragon's Gift: The Real Story of China in Africa*, 310.

⁹¹ The term "continuing advantage" is found in Dolman, *Pure Strategy: Power and Principle in the Space and Information Age.* Dolman does not associate this term with the Eastern style.

⁹² PLA Academy of Military Science text, *Science of Military Strategy*, quoted in Department of Defense, *Annual Report to Congress: Military Power of the People's Republic of China*, 14.

⁹³ Swaine, Tellis, and Project Air Force (U.S.), *Interpreting China's Grand Strategy: Past, Present, and Future*, 112.

⁹⁴ ——, Interpreting China's Grand Strategy: Past, Present, and Future, 113.

Chapter 5

Conclusion

A powerful theme undergirding US national security strategy is guaranteeing assured access to resources. Shortly after 9/11, increasing Chinese acquisition of minerals and mineral fuels in Africa and worldwide highlighted possible future competition over scarce resources. Many analysts decried Chinese actions, for the Chinese offered aid in exchange for resources without any of the West's restrictions that required demonstration of democracy, good governance and increased transparency.

The purpose of this paper then was to assess China's grand strategy in light of its acquisition of mineral and petroleum resources in Africa. It accomplished this task in three stages: first, it assessed China's expansion in comprehensive national power using geopolitical construct to review critical factors of China's geographic position, demography, natural resource endowment, political ideology and national ethos, and economic size and structure; second, it considered how China's domestic and international environment, national interests, objectives, statecraft, and instruments of power collectively shape development of China's foreign affairs strategy; third, it combined these previous two elements and set them within the context of China's expanded engagement in Africa. This latter stage demonstrated that China's strategy in Africa is manifold, involving acquisition of mineral and petroleum resources, but just as importantly establishing markets, solidifying relationships, and expanding influence. The conclusion now considers the resulting implications for the United States from this Sino-African engagement.

Since Deng came into power, the CCP has increasingly leveraged China's rich physical geography, expansive demographics, and successful industrialization efforts to lift hundreds of millions of Chinese out of poverty. China's average GDP growth of over nine percent for the last three decades, its enviable foreign exchange reserves, and its formidable labor force, along with its leadership of the G-77 uniquely place it in a newfound position of leveragability and flexibility in the international arena—particularly as the rest of the world is still reeling economically.

As discussed in Chapter 2 and 3, this is not to say that China is devoid of domestic or international concerns. China's social and regional tensions are exacerbated by economic disparities and varied opportunities for its domestic population. The CCP's social contract with the Chinese people profoundly stakes its legitimacy on sustained economic growth—particularly raising resident expectations for rapidly rising living standards and for social stability. The CCP additionally capitalizes on cultural homogeneity, stoking nationalistic fervor and sentiments to reclaim China's position on the global stage as the Middle Kingdom. Economic growth, however, is absolutely contingent on retaining assured access to the necessary mineral and mineral fuel resources that fuel production and manufacturing. The Chinese additionally believe they begin from a disadvantageous position within a world system that preserves benefits for certain states.

China's strategy is one of "constrained maximization," where China seeks to "increase its power in a variety of issue areas in as non-provocative a fashion as possible to avoid precipitating regional or global responses that might retard the growth of that power...and desensitizes political and economic partners to relative gains in Chinese capabilities." China thus pursues a seemingly dualistic grand strategy, utilizing a sound realist approach of pursuing essential resources while securing political capital and votes to leverage within the current international construct. CCP prudent strategies involve a range of fluid

⁹⁵ ———, Interpreting China's Grand Strategy: Past, Present, and Future, 113.

responses and unanticipated maneuvers all under the pursuit of longterm relative gains.

To obtain its objectives, China has sought to maximize its comprehensive national power, converting this collective power as necessary into various packages of diplomacy, ideational influence, economic aid and trade. The Chinese plan is not drawn out in a Western ends-means style approach, nor does it contain a meticulous, detailed course of action. Rather the Chinese strategy is to remain poised, ready to exploit the "potential energy within the situation" by focusing on proper timing such that "with very little effort one can produce 'great effects." For example, China has stepped into relationship voids, establishing connections where Western states have often ostracized these same states. China's *go global* directive similarly provides general guidance on investment areas in certain states, enabling and assisting its major corporations at appropriate junctures while leaving the finer details of what types of projects are pursued up to them.

China's resurgence as a major actor in the resource-rich and security-deprived African continent complicates an already confusing maelstrom of complex factors. China's method of assistance, in part, involves leveraging "its economic strength for strategic gains by offering cash loans to fiscally weak, resource-rich countries for access to their resources." Chinese loans contain only one condition—that states accepting any assistance sever their diplomatic relationships with Taiwan. In this vein, Chinese models arguably compete with and threaten to uproot Western efforts at good governance, transparency, and human rights.

However, as covered in Chapter 4, this viewpoint only captures one type of Chinese economic aid and it only addresses one of their objectives

⁹⁶ Jullien, A Treatise on Efficacy: Between Western and Chinese Thinking, 18-19.

⁹⁷ Linton Brooks et al., "China's Arrival: A Strategic Framework for a Global Relationship," 8.

in Africa—guaranteeing access to non-fuel mineral and petroleum resources. China is additionally pursuing three other primary objectives in its engagement with Africa, including expanding available markets in Africa in increased opportunities for its own domestic exports, solidifying support of Chinese interests in international regimes like the WTO and UN Security Council by garnering African votes, and maintaining or expanding Taiwan's diplomatic isolation.

Implications for the United States

Five prominent implications arise from the discussion about China's comprehensive national power and its foreign affairs strategy for Africa. First, the United States has been too strategically distracted by domestic economics and in resolving the Iraq and Afghanistan conflicts to assess its reliance on mineral resources and to devote appropriate resources to this issue. Second, Chinese engagement in Africa is as much about resources as it is about relationships. Third, China's differential growth of power has redistributed power in the international system and created a level of system disequilibrium. Fourth, the United States must rethink prioritization of good governance and democracy as well as more holistic approaches to addressing Africa's challenges. Finally, the international system has begun changing—mainly at the level of Gilpin's *interaction change*—and China has begun to challenge the status quo.

#1 - Strategic Distraction

...war has become too expensive, not just in military terms, but in terms of what it would do to the reservoirs of national power.

Robert Ross⁹⁸

Prolonged US engagements in Iraq and Afghanistan continue to absorb massive amounts of US comprehensive national power. Force applied and deployed in these regions is depleting American national

100

⁹⁸ Ross, Chinese Security Policy: Structure, Power and Politics, 1.

power, with estimates for the Iraq war ranging between \$1 trillion and as high as \$3 trillion.⁹⁹ Moreover, the US economy languished in 2008; the economic crisis expanded globally, with the US GDP retracting rapidly despite colossal injections of government relief that increased national debt. The National Intelligence Council observes that the crisis is continuing to accelerate "the global economic rebalancing," with "increased calls for a new 'Bretton Woods' to better regulate the global economy." ¹⁰⁰

US strategic attention appears primarily focused on domestic economic issues and on resolving strategic concerns in the Middle East. Lost in the shuffle is attention to other critical areas that will likely affect the United States in the next 20 to 30 years. The Chinese have positioned themselves geopolitically in Africa to garner resources, establish markets, and leverage relationships, while the United States is primarily focused on operations elsewhere. 101

As discussed in the introduction, despite increased requirements for foreign imports of non-fuel minerals, the United States has not appropriately gauged its supply chain vulnerabilities. The first implication then is that the United States has not properly gauged how significant mineral resources are to the preservation of economic infrastructure and defense technology.

As further evidence of how the United States continues to be surprised in this vein, consider this recent vignette. On 14 April 2010,

⁹⁹ See, for example, Joseph E. Stiglitz and Linda Bilmes, *The Three Trillion Dollar War: The True Cost of the Iraq Conflict* (New York: W.W. Norton, 2008). This cost should not be construed as arguing that the United States fails to gain certain security and stability objectives through these expenditures. Only time will reveal whether these costs in comprehensive national power provided commensurate gains in achieving state objectives.

 $^{^{\}rm 100}$ Office of the Director of National Intelligence, "Global Trends 2025: A Transformed World," 10.

¹⁰¹ This is not to say that AFRICOM, for example, is not conducting noteworthy operations in improving state security and building partnership capacity. Rather, it denotes the dramatic difference in the level of vested interest on a comparative and whole-of-government scale.

the US Government Accountability Office (GAO) submitted its mandated response to House and Senate Armed Services Committees' inquiries for a report on rare earth minerals and the respective US defense supply chain of these minerals. 102 The GAO report unveiled the following: The materials produced from these 17 chemically-similar metallic minerals are used in a wide variety of critical US commercial and military applications such as cell phones, computer hard drives, hybrid cars, precision-guided munitions, night vision equipment, communication systems, radar systems, satellites, and radar. 103 China's ownership of world production for these minerals had rapidly grown in the last decade to nearly 97 percent of last year's total world production. 104 Moreover, China's adoption of reduced domestic production quotas on rare earths, along with decreases on exports and increased export taxes of 15 to 25 percent, resulted in increased costs and decreased supply of such critical materials. 105 The United States—a state highly reliant on these minerals—discovered it had no domestic production capacity and had lost the industrial know-how, an expertise that would take an estimated 15 years to fully resurrect.

The Chinese succeeded in the progressive, gradual dismemberment of US options over time, through an array of indirect, subtle, economic coercion and cooperative pressures. Chinese strategy advocates reducing an opponent "to passivity by very gradually stripping him of his

_

¹⁰² John Neumann et al., "Rare Earth Materials in the Defense Supply Chain," ed. Government Accountability Office. (14 April 2010), 4, 10.

^{103 ——, &}quot;Rare Earth Materials in the Defense Supply Chain," 4, 27.

earth mine, known as the Mountain Pass mine in California, suspended operations in 2002 due to environmental issues and an increasing inability to compete with China's prices. However, just starting the mine back up would not resolve current US loss of its refining capability to convert mined oxides into pure rare earth materials. As with other minerals, rare earth refinement requires a sophisticated supply chain involving a number of complex processing stages—including mining, separating, refining, forming, and manufacturing—that the United States in the main no longer possesses. See John Neumann et al., "Rare Earth Materials in the Defense Supply Chain," 12-20.

ability to react."¹⁰⁶ Arguably this was accomplished in some measure by the Chinese when considering their dominance of producing and controlling this strategic mineral asset.

#2 - Resources and Relationships

Chinese engagement in Africa is as much about resources as it is about relationships. Chapter 4, for example, showed how China provides economic aid to all sub-Saharan African states that sever diplomatic relations with Taiwan. Additionally this same chapter discussed how Chinese economic aid packages and diplomatic visits target expansion of African markets and stronger voting blocs within international regimes.

China mobilized significant diplomatic support within organizations outside the traditional international regimes. This included the G-77, an organization of developing states primarily composed of African nations. China capitalized on its image as the leading developing state and its gain in comprehensive national power, assuming in many respects the leading role within this organization. China additionally initiated FOCAC, one of many new multilateral, regional organizations that exclude the United States. 107

China's engagement also holds positive and negative economic potential for African states. On the positive side, China's infrastructure investments could provide opportunity for African states to develop more expansive ownership of the value chain. African states may increase ownership of forward and backward linkages to insert greater value in the processing chain, thus "lead[ing] to greater diversification of Africa's exports away from excessive reliance on a few commodities and towards increased production of labor-intensive light manufactured goods and services." 108

Jullien, A Treatise on Efficacy: Between Western and Chinese Thinking, 138.
 Additional organizations include the Shanghai Cooperation Organization (SCO) in Central Asia, the China-Arab Cooperation Forum, and the East Asia Summit (EAS).
 Broadman and Isik, Africa's Silk Road: China and India's New Economic Frontier, 34.

At the same time, China's expansive pool of skilled labor solidifies its comparative advantage in manufactured products.¹⁰⁹ In 2004, for example, 62 percent of Africa's exports to China were ores and metals, 17 percent was oil and natural gas, and just 11 percent was manufactured materials, textiles, apparel, and footwear. 110 Meanwhile, 54 percent of China's exports to Africa were manufactured materials, textiles, apparel, and footwear. 111 China's exports to Africa threaten to undo African states' efforts to promote this commodity group. 112 African states find great difficulty in moving up the value-chain and in diversifying their exports as a result.

#3 - Differential Growth of Power

China's differential growth of power has redistributed power in the international system and created a level of system disequilibrium. This trend is likely to continue. The National Intelligence Council's Global Trends 2025 report foresees that "No other countries are projected to rise to the level of China, India, or Russia, and none is likely to match their individual global clout."113 In sharp contrast with its 2020 report published four years earlier, the 2025 report now assumes "dramatic changes in the international system," with "the shift from a unipolar world dominated by the United States to a relatively unstructured hierarchy of old powers and rising nations [China and India], and the diffusion of power from state to non-state actors."114 The report also highlights the increased likelihood of conflict over scarce resources of energy, food, and water. 115

^{–,} Africa's Silk Road: China and India's New Economic Frontier, 86.

^{110 ———,} Africa's Silk Road: China and India's New Economic Frontier, 81.

^{111 ———,} Africa's Silk Road: China and India's New Economic Frontier, 81.

^{112 ——,} Africa's Silk Road: China and India's New Economic Frontier, 86.

¹¹³ Office of the Director of National Intelligence, "Global Trends 2025: A Transformed

[&]quot;Global Trends 2025: A Transformed World," 1-2.
"Global Trends 2025: A Transformed World," viii.

In the last several years, membership and voting representation in various international forums and regimes has changed in recognition of the economic growth and increased economic interdependence of China, Brazil, India, and a host of other developing countries. US leadership—perhaps spurred by the international economic crisis—pushed for the significant move in September 2009 of supplanting the G-8 with the G-20 as the new "premier forum for our international economic cooperation." Amongst the first acts of this G-20 forum—reportedly proposed again by the United States—was the requested reapportionment of five percent of the voting or quota share in the International Monetary Fund (IMF) from industrialized states to emerging market and developing states. 117

#4 - Rethinking US Priorities

We believe that Chinese aid and investment policies are not transparent, and generally lack the conditionality that's been attached by leading donors and international institutions. Conditionality is designed to encourage good governance, and we believe that good governance in Africa is the foundation of sustained economic development.

Thomas J. Christensen, Deputy Assistant Secretary of State for East Asian and Pacific Affairs, and James Swan, Assistant

Secretary of State for African Affairs¹¹⁸

¹¹⁶ International Monetary Fund, "G-20 Backs Sustained Crisis Response, Shift in IMF Representation,"

http://www.imf.org/external/pubs/ft/survey/so/2009/NEW092509A.htm (accessed 2 April 2010). The G-8 includes Canada, France, Germany, Italy, Japan, Russia, the United Kingdom, and the United States. The G-20 adds the collective European Union and 11 other countries, including Argentina, Australia, Brazil, China, India, Indonesia, Mexico, Saudi Arabia, South Africa, the Republic of Korea, and Turkey. The Managing Director of the IMF and the President of the World Bank also attend these forums.

117 Bob Davis, Jonathan Weisman, and Stephen Fidler, "G-20 Near Deal on Economy: Plan Calls for Peer Review of Each Nation's Policies on Growth; G-8 to Take a Back Seat," *Wall Street Journal* 25 September 2009. The current split of IMF voting shares is roughly split at 60/40 between advanced countries and emerging market and developing countries. International Monetary Fund, "G-20 Backs Sustained Crisis Response, Shift in IMF Representation."

¹¹⁸ Thomas J. Christensen and James Swan in United States. Congress. Senate. Committee on Foreign Relations. Subcommittee on African Affairs., *China in Africa:*

The United States has difficulty in setting priorities versus its prioritization. ¹¹⁹ In other words, the United States sets many priorities and declares many issues of vital national interest. The existence of a prioritized list of vital interests is rare though, if not non-existent. Declared American priorities in Africa are "fostering free and fair markets/trade, competitive access to resources, fostering good governance, countering illegal trafficking, and countering threat of terrorism." ¹²⁰ Which of these priorities receives highest attention depends on context at the time and which state the United States is addressing. Consider these same priorities *vis-à-vis* US relations with Saudi Arabia. Arguably competitive access to resources has traditionally trumped calls for good governance, democracy, and transparency.

The key question the United States must reconsider is this: has the attachment of political conditions to donations of foreign aid been effective in improving democracy and human rights in African states?¹²¹ The United States must also evaluate the geopolitical ramifications of prioritizing good governance and democracy for African states as the top priority. In ostracizing an African state by cutting off diplomatic and/or economic ties, the United States eliminates its remaining coercion and cooperation tools (sticks and carrots). It also opens opportunity for other states, such as China, to step into this relational void, for China may claim adherence to its relational principle of non-interference in another state's internal affairs.

Finally, the United States should also consider China's demonstrated method of bringing holistic approaches to addressing

Implications for U.S. Policy: Hearing before the Subcommittee on African Affairs of the Committee on Foreign Relations, United States Senate, One Hundred Tenth Congress, second session, June 4, 2008, 40.

¹¹⁹ Abraham M. Denmark, *Interview with Author*.

¹²⁰ General William E. "Kip" Ward, "United States Africa Command: Command Brief."

¹²¹ Political conditions in this regard assume that good governance and transparency may successfully be imposed from outside the state.

Africa's challenges. The efforts to integrate USAID and the State Department into the AFRICOM structure are positive steps in this regard, helping facilitate a more pragmatic approach of linking diplomacy, foreign aid, security assistance, and economic commerce in a complete package. However, the fact that these items are carried under the umbrella of military supervision and uniforms automatically carries certain remembrances of colonial rule—a reality AFRICOM quickly realized when unable to find basing on the continent.

African perceptions of Chinese and African aid prove insightful as well. Serge Mobouli, the ambassador from Congo-Brazzaville to the United States, noted in discussion on National Public Radio that while the West pushes for good governance, the Chinese provide tangible items. The fact is, he says, "We need both. We cannot be talking just about democracy, transparency, good governance. At the end of the day the population does not have anything to eat, does not have water to drink, no electricity at night, industry to provide work, so we do need both. People do not eat democracy." 122

#5 – Interaction and Systemic Change

What is happening in China at the moment is not only a model for China, but has begun to remake the whole landscape of international development, economics, society and, by extension, politics. While the US is pursuing unilateral policies designed to protect United States interests, China is assembling the resources to eclipse the US in many essential areas of international affairs and constructing an environment that will make US hegemonic action more difficult.

Joshua Ramo¹²³

The United States is increasingly unable to impose its will on others and to protect its interests by unilateral action. The international

107

¹²² Serge Mobouli, as quoted in Brautigam, *The Dragon's Gift: The Real Story of China in Africa*, 287.

¹²³ Joshua Cooper Ramo, "The Beijing Consensus," 3.

system has begun changing—mainly at the level of Gilpin's *interaction* change discussed in the introduction.

Recall that redistribution of power in the international system creates *system disequilibrium* as a rising state increases demands for change to match its gains in power or its unmet interests. As discussed in Chapter 3, China clearly outlined its desire for a multipolar world. In its 2008 defense white paper, China found itself at a "new historical turning point" in its role in global economic, political, and military affairs and proclaimed that "Economic globalization and world multi-polarization are gaining momentum...The rise and decline of international strategic forces is quickening, major powers are stepping up their efforts to cooperate with each other and draw on each other's strengths. They continue to compete with and hold each other in check, and groups of new emerging developing powers are arising. Therefore, a profound readjustment is brewing in the international system."¹²⁴

From Gilpin, this system equilibrium is likely resolved by either a *systemic change*, meaning a change in the governance or control of the international system; or an *interaction change*, meaning a change in the regular processes and interactions among the main actors in the international system. ¹²⁵ Interaction change is already evident, with the aforementioned changes in processes and interactions among actors such as China's role in the G-77, its creation of FOCAC and other new multilateral processes for economic and diplomatic engagement, and changes from the G-8 to the G-20. As discussed in this analysis, China has formed a number of diplomatic alliances and has driven substantial shifts in the locations of economic activities. ¹²⁶ China is well aware that Africa's 53 distinct states represent over ½ of the voting bloc in the UN's

-

¹²⁴ Information Office of the State Council of the People's Republic of China, "China's National Defense in 2008." CNA China Studies and National Defense University, "China's National Defense in 2008: Panel Discussion Report", 1, 3, 4.

¹²⁵ Gilpin, War and Change in World Politics, 39-40.

^{126 ———,} War and Change in World Politics, 39-40.

General Assembly. African states, by agreement, also hold 3 of the 10 non-permanent seats on the UN's Security Council. China may, in the future, slowly leverage these relationships to challenge US positions in the UN and in other regional arrangements. Either way, it is clear that the Chinese have established a vast economic and geopolitical beachhead in Africa.

Final Thoughts

Africa poses a threat to United States national security which extends far beyond traditional concerns about preventing piracy, ethnic strife, terrorism, and pandemic disease from breaching the borders of Africa's failed or failing states. The US has strategically miscalculated in its limited definition of the problem. Africa is just as much, if not more, about resources and relationships.

China, in contrast, has grasped this strategic context, and in the last decade stepped significantly into the relational vacuum. Rather than focusing on Africa as an afflicted continent, as a terrorist haven, and as a source of threats, risks, and problems, China views Africa as a source of opportunity and significant potential.

China recognizes Africa's rich endowment of mineral reserves and its possibilities for partnership. Moreover, as discussed in Chapter 4, China offers an alternative model for political and economic development, a model that proves remarkably attractive "to under-performing authoritarian regimes, in addition to weak democracies frustrated by years of economic underperformance." This fits well with Organski's argument, for he asserts that in challenging the status quo, a rising state is likely to draw support from the ranks of those also dissatisfied with the status quo—those small powers and dependent nations. E.H. Carr astutely observes that this period of status quo adjustment requires

_

¹²⁷ Office of the Director of National Intelligence, "Global Trends 2025: A Transformed World," 12.

¹²⁸ Organski, World Politics, 368-71.

establishment of "methods of peaceful change" and is "the fundamental problem of international morality and of international politics" 129 (emphasis mine).

The United States must be concerned about China's engagement with African states, for these remarkable "changes at the level of interstate interactions (viz., formation of diplomatic alliances or major shifts in the locations of economic activities) may be the prelude to systemic change and eventually systems change."130 Perhaps noticing this substantial interaction change and fearing eventual systemic change, the clarion call of top US leaders in the past five years has reached a crescendo—a motivated plea and endeavor for China to become a "responsible stakeholder" in the *current* international system.

In other words, this action might be motivated by US desires to avoid systemic change—that dramatic change in the governance or control of the international system—by tightly integrating and vesting China's economic growth within the current constructs. In this same vein, the US-China Economic and Security Review Commission in 2005 foresaw that "Perhaps the greatest challenge that faces the United States is to develop a coherent strategic framework for approaching China in a way that does protect vital U.S. interests while recognizing legitimate Chinese aspirations, minimizing the likelihood of conflict, building cooperative practices and institutions, and advancing both countries' long-term interests wherever that is possible ... This surely will test U.S. creativity and diplomatic skill. 131

Strategic competition with China over Africa is not just about critical mineral and mineral fuel resources. It also involves relationships and influence. China's engagement in Africa, coupled with substantial

¹²⁹ Edward Hallett Carr and Michael Cox, The Twenty Years' Crisis, 1919-1939: An Introduction to the Study of International Relations (New York: Palgrave, 2001), 222. ¹³⁰ Gilpin, War and Change in World Politics, 40.

¹³¹ U.S.-China Economic and Security Review Commission, "2005 Report to Congress of the U.S.-China Economic and Security Review Commission," (November 2005), 1-2.

gains in comprehensive national power, positions China with the potential to accelerate or mitigate interactive and systemic change in the current international system. Whether China will leverage its gains in resources, relationships, and influence to accelerate global economic rebalancing or to alter the governance or control of the international system remains to be seen.

National security requires more than guarding against traditional military threats or acts of terrorism. The United States must therefore reevaluate its African policy to encompass resources and relationships. It must do this to prevent further erosion of the international status quo. No less significantly, it must secure the US economic industrial base and its military's technological edge by guaranteeing access to strategic minerals. Our security as a nation depends on it.

Bibliography

- Abraham M. Denmark, Dr. James Mulvenon, Frank Hoffman, Lt Col Kelly Martin (USAF), Eric Sterner Oliver Fritz, Dr. Greg Rattray, Chris Evans, Jason Healey, and Robert D. Kaplan. "Contested Commons: The Future of American Power in a Multipolar World." edited by Abraham M. Denmark and Dr. James Mulvenon: Center for a New American Security, January 2010.
- Abraham M. Denmark, Fellow with the Center for a New American Security (CNAS) and Director of the Asia-Pacific Security Program. *Interview with Author*. Washington, D.C., 2 April 2010.
- Albert Keidel, and Carnegie Endowment for International Peace. "The Economic Basis for Social Unrest in China." In *The Third European-American Dialogue on China*. The George Washington University: 26-27 May 2005.
- Ampiah, Kweku, and Sanusha Naidu. *Crouching Tiger, Hidden Dragon?: Africa and China*. Scottsville, South Africa: University of KwaZulu-Natal Press, 2008.
- Amy Richmond Krakowka, and Laurel J. Hummel. *Understanding Africa: A Geographic Approach*. Edited by Center for Strategic Leadership: United States Military Academy, January 2009.
- Batson, Andrew. "China's Reserves Expand " Wall Street Journal 18 January 2010
- BBC. "China's Foreign Reserves Top \$2tn." http://news.bbc.co.uk/2/hi/business/8151223.stm (accessed 28 March 2010).
- Bob Davis, Jonathan Weisman, and Stephen Fidler. "G-20 Near Deal on Economy: Plan Calls for Peer Review of Each Nation's Policies on Growth; G-8 to Take a Back Seat." *Wall Street Journal* 25 September 2009.
- Brautigam, Deborah. "China's African Aid: Transatlantic Challenges." *German Marshall Fund Paper Series* (April 2008).
- ——. *The Dragon's Gift: The Real Story of China in Africa*. Oxford: Oxford University Press, 2009.

- Broadman, Harry G., and Gozde Isik. *Africa's Silk Road: China and India's New Economic Frontier*. Washington, DC: World Bank, 2007.
- Burke, Sharon. "China is Calling for Your Cell Phone." *Defense News* (12 October 2009): Op-Ed.
- C. Fred Bergsten, Bates Gill, Nicholas R. Lardy, and and Derek Mitchell. "China: The Balance Sheet; What the World Needs to Know Now About the Emerging Superpower." Center for Strategic and International Studies and the Institute for International Economics, 2006.
- Carl Atkin, Gary R. Blumenthal, David Hallam, Chido Makunike, Ruth Meinzen-Dick and Helen Markelova, Raul Q. Montemayor, and Alexandra Spieldoch and Sophia Murphy. "Land Grab? The Race for the World's Farmland." edited by Mchael Kugelman and Susan L. Levenstein. Washington, D.C.: Woodrow Wilson International Center for Scholars, 2009.
- Carr, Edward Hallett, and Michael Cox. *The Twenty Years' Crisis, 1919-1939: An Introduction to the Study of International Relations.* New York: Palgrave, 2001.
- Center for Strategic and International Studies, and Prudential Foundation. "China's Long March to Retirement Reform: The Graying of the Middle Kingdom Revisited." edited by Richard Jackson, Keisuke Nakashima, Neil Howe and Jiangong Zhou, 22 April 2009.
- Central Intelligence Agency. "The World Factbook 2009." Washington, DC, 2009.
- Chow, Edward. *Interview with author*. Center for Strategic and International Studies, Washington, D.C., 1 April 2010.
- CNA China Studies, and Institute for National Strategic Studies. National Defense University. "China's National Defense in 2008: Panel Discussion Report." 6 February 2009.
- Committee on Assessing the Need for a Defense Stockpile, National Materials Advisory Board, Division on Engineering and Physical Sciences, and National Research Council. "Managing Materials for a Twenty-first Century Military." edited by National Academies Press, 2008.
- Committee on Critical Mineral Impacts of the U.S. Economy, Committee on Earth Resources, and National Research Council. "Executive Summary: Minerals,

- Critical Minerals, and the U.S. Economy." edited by National Academies Press. Washington, D.C., 2008.
- ——. "Minerals, Critical Minerals, and the U.S. Economy." edited by National Academies Press. Washington, D.C., 2008.
- Craig K. Elwell, Marc Labonte, and Wayne M. Morrison. *Is China a Threat to the U.S. Economy?*, Congressional Research Service (CRS) report for Congress, RL33604. Washington, DC: CRS, 23 January 2007.
- Deibel, Terry L. Foreign Affairs Strategy: Logic for American Statecraft. New York: Cambridge University Press, 2007.
- Department of Defense. Annual Report to Congress: Military Power of the People's Republic of China, 2009.
- ———. Reconfiguration of the National Defense Stockpile Report to Congress, April 2009.
- Department of State. "Background Notes: China." http://www.state.gov/r/pa/ei/bgn/18902.htm.
- Dolman, Everett C. *Pure Strategy: Power and Principle in the Space and Information Age*, Cass Series--Strategy and History. New York: Frank Cass, 2005.
- Duiker, William J., and Jackson J. Spielvogel. *The Essential World History*. 3rd ed. Belmont, CA: Thomson Wadsworth, 2008.
- Energy Information Administration. "Country Analysis Briefs: China." http://www.eia.doe.gov/cabs/China/Full.html (accessed 2 May 2010).
- Erickson, Andrew S., and Gabriel B. Collins. "China's Oil Security Pipe Dream: The Reality, and Strategic Consequences, of Seaborne Imports." *Naval War College Review* 63, no. 2 (Spring 2010).
- Foreign Policy (magazine) & The Fund for Peace. "The Failed States Index 2009." http://www.fundforpeace.org/web/index.php?option=com_content&task=view&id=99&Itemid=140 (accessed 25 February 2010).
- Freedom House. "Freedom in the World 2010: Global Erosion of Freedom." http://www.freedomhouse.org/template.cfm?page=505 (accessed 23 February 2010).

- General William E. "Kip" Ward. "United States Africa Command: Command Brief." http://www.africom.mil/pdfFiles/Command%20Brief020810.pdf (accessed 10 March 2010).
- Gilpin, Robert. War and Change in World Politics. Cambridge: Cambridge University Press, 1981.
- Goldman Sachs. "BRICs and Beyond." http://www2.goldmansachs.com/ideas/brics/BRICs-and-Beyond.html (accessed 26 April 2010).
- Goodman, Peter S. "China Invests Heavily In Sudan's Oil Industry: Beijing Supplies Arms Used on Villagers." *Washington Post Foreign Service* 23 December 2004.
- Goodrich, L. Carrington. *A Short History of the Chinese People*. Mineola, N.Y.: Dover Publications, 2002.
- Gray, Colin S. *Modern strategy*. New York: Oxford University Press, 1999.
- Gurr, Ted Robert, and Woodrow Wilson School of Public and International Affairs. *Why Men Rebel*. Princeton, N.J.,: Published for the Center of International Studies, Princeton University Press, 1970.
- Hairong, Barry Sautman and Yan. *East Mountain Tiger, West Mountain Tiger: China, the West, and "Colonialism" in Africa*. Vol. 186, Maryland Series in Contemporary Asian Studies. Baltimore, MD: University of Maryland School of Law, Number 3 2006.
- Hall, George M. Geopolitics and the Decline of Empire: Implications for United States Defense Policy. Jefferson, N.C.: McFarland & Co., 1990.
- Haxel, Gordon B., James B. Hedrick, and Greta J. Orris. "Rare Earth Elements—Critical Resources for High Technology." In *USGS Fact Sheets*, edited by Peter H. Stauffer and James W. Hendley II, 2002.
- Hu Jintao. "Full text of President Hu's Speech at China-Africa Summit " http://www.gov.cn/misc/2006-11/04/content_432652.htm (accessed 5 May 2010).
- Hufbauer, Gary Clyde, Yee Wong, and Ketki Sheth. *US-China Trade Disputes: Rising Tide, Rising Stakes*. Washington, DC: Institute for International Economics, 2006.

- Information Office of the State Council of the People's Republic of China, Beijing. "China's National Defense in 2008." January 2009.
- International Maritime Organization. "International Shipping: Carrier of World Trade." (2005).
- International Monetary Fund. "G-20 Backs Sustained Crisis Response, Shift in IMF Representation." http://www.imf.org/external/pubs/ft/survey/so/2009/NEW092509A.htm (accessed 2 April 2010).
- James Gwartney, and Robert Lawson. "Economic Freedom of the World: 2009 Annual Report." Fraser Institute, 2009.
- Jerry Taylor. "CNOOC Bid for UNOCAL No Threat to Energy Security." *Free Trade Bulletin no 19* (19 July 2005).
- John Neumann, James Kim, Erin Carson, Brent Corby, Marie Ahearn, Barbara El Osta, and Morgan Delaney Ramaker. "Rare Earth Materials in the Defense Supply Chain." edited by Government Accountability Office., 14 April 2010.
- Joshua Cooper Ramo. "The Beijing Consensus." *The Foreign Policy Centre* (2004).
- Jullien, François. *A Treatise on Efficacy: Between Western and Chinese Thinking*. Honolulu: University of Hawai'i Press, 2004.
- Kevin Shillington. *History of Africa*. Rev. 2nd ed. New York: Palgrave Macmillan, 2005.
- Kitissou, Marcel. *Africa in China's Global Strategy*. 1st ed, African Renaissance Book Series. London: Adonis & Abbey Publishers, 2007.
- Kurlantzick, Joshua. *Charm Offensive: How China's Soft Power is Transforming the World*. New Haven: Yale University Press, 2007.
- Lai, Dr. David. "Learning from the Stones: A Go Approach to Mastering China's Strategic Concept, Shi." In *Advancing Strategic Thought Series*: Strategic Studies Institute, U.S. Army War College, May 2004.
- Lampton, David M. "The Faces of Chinese Power." *Foreign Affairs* (January/February 2007).

- ——. The Three Faces of Chinese Power: Might, Money, and Minds. Berkeley: University of California Press, 2008.
- Linton Brooks, Joshua W. Busby, Abraham Denmark, Lindsey Ford, Michael J. Green, G. John Ikenberry, Robert D. Kaplan, Nirav Patel, Daniel Twining, and Richard Weitz. "China's Arrival: A Strategic Framework for a Global Relationship." edited by Abraham Denmark and Nirav Patel: Center for a New American Security, September 2009.
- Lonsdale, David J. *The Nature of War in the Information Age: Clausewitzian Future*, Cass series--strategy and history. New York: Frank Cass, 2004.
- Lum, Thomas G. Comparing Global Influence: China's and U.S. diplomacy, Foreign Aid, Trade, and Investment in the Developing World, Congressional Research Service (CRS) report for Congress, RL34620. Washington, D.C.: CRS, 2008.
- ——. *Social Unrest in China*, Congressional Research Service (CRS) report for Congress, RL33416. Washington, D.C.: CRS, 2006.
- Mackinder, Halford John, Stephen V. Mladineo, and National Defense University. Institute for National Strategic Studies. *Democratic Ideals and Reality: A Study in the Politics of Reconstruction*. Washington, DC: National Defense University Press, 1996.
- Major Lawrence Spinetta, USAF. "The Malacca Dilemma: Countering China's "String of Pearls" with Land-Based Airpower." Air University, June 2006.
- Michael Pillsbury. "China's Progress in Technological Competitiveness: The Need for a New Assessment." In *A Report Prepared for the US China Economic and Security Review Commission*, 21 April 2005.
- Ministry of Foreign Affairs of the People's Republic of China (PRC). "China's African Policy." http://www.mfa.gov.cn/eng/zxxx/t230615.htm (accessed 10 February 2010).
- Morrison, Wayne M. *China's Economic Conditions*, Congressional Research Service (CRS) report for Congress, RL33534. Washington, DC: CRS, 11 December 2009.
- "National Security Strategy of the United States of America." http://www.strategicstudiesinstitute.army.mil/pdffiles/nss.pdf (accessed 20 May 2010).

- Office of the Director of National Intelligence. "Global Trends 2025: A Transformed World." In *NIC* 2008-003, November 2008.
- Omayra Bermudez, W. David Menzie, Phil Mobbs, Pui-Kwan Tse, and Tom Yager. *Interview with author*. US Geological Survey, Reston, VA, 31 March 2010.
- Organski, A. F. K. World Politics. 2d ed. New York,: Knopf, 1968.
- Organski, Katherine Fox, and A. F. K. Organski. *Population and World Power*. [1st ed. New York,: Knopf, 1961.
- OSD Policy, China Representative. *Interview with author*. Pentagon, Washington, D.C., 29 March 2010.
- Pakenham, Thomas. *The Scramble for Africa*, 1876-1912. 1st US ed. New York: Random House, 1991.
- "Pakistan launches strategic port " BBC News 20 March 2007.
- Ploch, Lauren. *Africa Command: US Strategic Interests and the Role of the US Military in Africa*, Congressional Research Service (CRS) report for Congress, RL34003. Washington, DC: CRS, 16 May 2007.
- Preeg, Ernest H. *The Emerging Chinese Advanced Technology Superstate*. Washington, DC: Manufacturers Alliance/MAPI; Hudson Institute, 2005.
- ——. India and China: An Advanced Technology Race and How the United States Should Respond. Arlington, VA: Manufacturers Alliance/MAPI, 2008.
- Pui-Kwan Tse. "The Mineral Industries of China." In 2008 Minerals Yearbook: US Geological Survey, October 2009.
- Ross, Robert S. *Chinese Security Policy: Structure, Power and Politics*. New York: Routledge, 2009.
- Rossabi, Morris. China among Equals: The Middle Kingdom and Its Neighbors, 10th-14th Centuries. Berkeley: University of California Press, 1983.
- Selected Book Translations XX (On National Security Strategy). Translated by Science Applications International Corporation (SAIC). 6 May 2009.

- UNCLASSIFIED//FOR OFFICIAL USE ONLY. Edited by Ge Dongsheng and Chen Zhou. Beijing: Military Science Publishing House, July 2006.
- Shai Oster, and Rick Carew. "China Inc.'s Top Deal Maker Provokes a Backlash Abroad" *Wall Street Journal* 16 April 2009.
- Shambaugh, David L. *Power Shift: China and Asia's New Dynamics* Berkeley: University of California Press, 2005.
- Stiglitz, Joseph E., and Linda Bilmes. *The Three Trillion Dollar War: The True Cost of the Iraq Conflict*. New York: W.W. Norton, 2008.
- Straszheim, Donald H. "China Rising." *World Policy Journal: MIT Press* (Fall 2008): 157-70.
- Stratfor. "China: Engagement for Africa." http://www.stratfor.com/china_engagement_africa (accessed 22 February 2010).
- Sun Tzu, and Samuel B. Griffith. *The Illustrated Art of War*. New York: Oxford University Press, 2005.
- Sutter, Robert G. Chinese Policy Priorities and their Implications for the United States. Lanham, Md.: Rowman & Littlefield Publishers, 2000.
- Swaine, Michael D., Ashley J. Tellis, and Project Air Force (U.S.). *Interpreting China's Grand Strategy: Past, Present, and Future*. Santa Monica, CA: Rand, 2000.
- Taylor, Ian. *China and Africa: Engagement and Compromise*, Routledge Contemporary China Series Milton Park, Abingdon, Oxon; New York: Routledge, 2006.
- U.S.-China Economic and Security Review Commission. "2005 Report to Congress of the U.S.-China Economic and Security Review Commission." i-ix, 1-263, November 2005.
- United Nations. "Human Development Report 2009. Overcoming Barriers: Human Mobility and Development." 2009.
- United States. Congress. Senate. Committee on Foreign Relations. Subcommittee on African Affairs. China in Africa: Implications for U.S. Policy: Hearing before the Subcommittee on African Affairs of the Committee on Foreign

- Relations, United States Senate, One Hundred Tenth Congress, second session, June 4, 2008. Washington: U.S. G.P.O.: For sale by the Supt. of Docs. U.S. G.P.O., 2008.
- US Department of the Interior, and US Geological Survey. "Mineral Commodity Summaries 2010." Washington, D.C., 2007.
- W. David Menzie, Pui-Kwan Tse, Mike Fenton, John Jorgenson, and and Hendrik van Oss. "China's Growing Appetite for Minerals." In *Open-File Report* 2004-1374, edited by US Geological Survey, 2004.
- W. David Menzie, Scott F. Sibley, Daniel L. Edelstein, Stephen M. Jasinski, and John D. Jorgenson, and Dennis S. Kostick. "Overview of Noncoal Mineral Production in the United States in a Global Context—1987 to 2007." Paper presented at the Summit of the States on the Regulation of Noncoal Minerals, Interstate Mining Compact Commission, Denver, CO November 17, 2009.
- Walton, C. Dale. Geopolitics and the Great Powers in the 21st Century:

 Multipolarity and the Revolution in Strategic Perspective. New York, NY:
 Routledge, 2007.
- Waltz, Kenneth Neal. *Theory of International Politics*. 1st ed. Boston, Mass.: McGraw-Hill, 1979.
- Ward, General William E. "Kip". "United States Africa Command Commander's Intent 2010." (January 2010), http://www.africom.mil/pdfFiles/Commander's%20Intent%20January%202 010.pdf (accessed 10 February 2010).
- Williams, Paul D. "Thinking About Security in Africa." *International Affairs* 83, no. 6 (November 2007): 1021-38.
- Woetzel, Jonathan, Lenny Mendonca, Janamitra Devan, Stefano Negri, Yangmei Hu, Luke Jordan, Ziujun Li, Alexander Maasry, Geoff Tsen, and Flora Yu. "Preparing for China's Urban Billion." McKinsey Global Institute, March 2009.
- World Trade Organization. "Trade Profiles: EU, China, and the US." http://stat.wto.org/CountryProfile/WSDBCountryPFView.aspx?Language= E&Country=CN,US,E27 (accessed 2 April 2010).

- Xinhua News Agency. "CNOOC Withdraws Unocal Bid." http://www.china.org.cn/english/2005/Aug/137165.htm (accessed 27 February 2010).
- Yager, Thomas R., Omayra Bermudez-Lugo, Philip M. Mobbs, Harold R. Newman, Glenn J. Wallace, and David R. Wilburn. "The Mineral Industries of Africa." In *2007 Minerals Yearbook*: US Geological Survey, 2007.